DOCUMENT RESUME

ED 080 081 HE 004 472

AUTHOR	Aleamoni, Lawrence M.
TITLE	Illinois Course Evaluation Questionnaire (CEQ) Results Interpretation Manual Form 66 and Form 32.
INSTITUTION	Illinois Univ., Urbana. Office of Instructional Resources.
REPORT NO	RR-331
PUB DATE	72
NOTE	71p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	College Students; *Course Evaluation; *Effective Teaching; Evaluation; *Evaluation Methods; Faculty Evaluation; *Higher Education; *Program Effectiveness; Program Evaluation; Questionnaires; Student Attitudes; Teacher Evaluation
IDENTIFIERS	CEQ; *Illinois Course Evaluation Questionnaire

ABSTRACT

The Illinois Course Evaluation Questionnaire (CEQ) is an instrument used to collect student attitudes towards a course. Its purpose is to enable faculty members to collect evaluative information about their traching. The data are collected and processed by section but may also be processed by course, department, college, etc. The student responses are anonymous, and two copies of the questionnaire results are returned to the instructor only. He may submit one copy, if he chooses to do so, to his department chairman for consideration in the evaluation of his teaching. Each instructor's results are compared to an appropriate norm group. Comparisons are made with other instructors of his own academic rank, with thoses at the same course level (i.e., 100 level=freshmen, 200 level=sophomore, 300 level=junior and senior, 400 level=graduate), with other instructors in his particular department or college, as well as with all courses at that university to all courses that have used the CEQ throughout the United States. Conferences relative to the interpretation of results may be arranged at the instructor's convenience. (Author)

FILMED FROM BEST AVAILABLE COPY

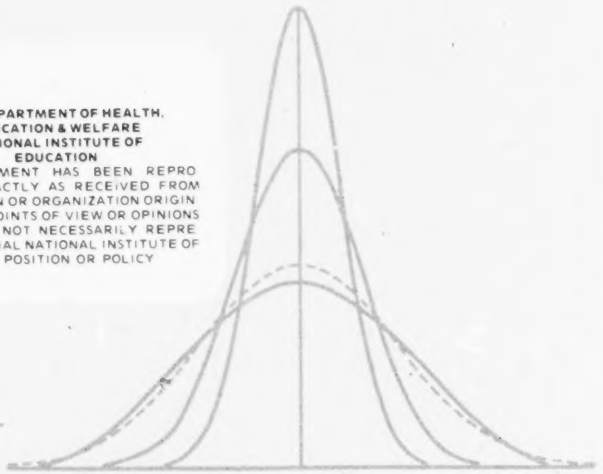
ED 080081

Research Report

TITLE **ILLINOIS COURSE EVALUATION QUESTIONNAIRE (CEQ) RESULTS INTERPRETATION MANUAL FORM 66 AND FORM 32**

AUTHOR **Lawrence M. Aleamoni**

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY



REPORT # **331** DATE **1972**

May be quoted in whole or in part if credit is given the source.

MEASUREMENT AND RESEARCH DIVISION - OFFICE OF INSTRUCTIONAL RESOURCES
307 ENGINEERING HALL - UNIVERSITY OF ILLINOIS
URBANA, ILLINOIS 61801

HE004472

ACKNOWLEDGEMENTS

This publication represents the coordinated effort of several dedicated members of the Measurement and Research Division of the Office of Instructional Resources. Special thanks is, therefore, given to:

Mrs. Barbara Cinnamon
Mrs. Carolyn Ehler
Mrs. Eileen Kohen
Dr. Gerald M. Gillmore
Mr. Theodore W. Hertzog

ABSTRACT

The Illinois Course Evaluation Questionnaire (CEQ) is an instrument used to collect student attitudes towards a course. Its purpose is to enable faculty members to collect evaluative information about their teaching. The data are collected and processed by section but may also be processed by course, department, college, etc. The student responses are anonymous, and two copies of the questionnaire results are returned to the instructor only. He may submit one copy, if he chooses to do so, to his department chairman for consideration in the evaluation of his teaching.

Each instructor's results are compared to an appropriate norm group. Comparisons are made with other instructors of his own academic rank, with those at the same course level (i.e., 100 level = freshmen, 200 level = sophomore, 300 level = junior and senior, 400 level = graduate), with other instructors in his particular department or college, as well as with all courses at that university to all courses that have used the CEQ throughout the United States. Conferences relative to the interpretation of results may be arranged at the instructor's convenience. The evaluation service is free of charge to instructors at the University of Illinois and is available upon request from the Measurement and Research Division, Office of Instructional Resources, 307 Engineering Hall, Urbana, Illinois 61801, (217) 333-3490.

TABLE OF CONTENTS

	Page
List of Tables	*vii*
List of Figures	*ix*
Introduction	1
Identification Information	2
Course and Instructor Data	2
Student Data	9
Item Responses 1-50 or 1-24	9
Subscale Responses	11
The Interpretation of Results	14
References	18
Appendices	
Appendix A - Illinois Course Evaluation Questionnaire (Form 66)	19
Appendix B - Illinois Course Evaluation Questionnaire (Form 32)	21
Appendix C - Decile Norm Cut-off Scores for CEQ Items	23
Appendix D - Decile Norm Cut-off Scores for CEQ Subscales Within Instructor Rank	39
Appendix E - Decile Norm Cut-off Scores for CEQ Subscales Within Course Levels	51
Appendix F - Decile Norm Cut-off Scores for CEQ Subscales at the University of Illinois	61
Appendix G - Decile Norm Cut-off Scores for CEQ Subscales Throughout the United States	63

LIST OF TABLES

Table		*Page*
1	CEQ Items Grouped by Subscales	12
2	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for CEQ Items on 2784 Sections Taught at the University of Illinois	24
3	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for CEQ Items on 5346 Sections Taught Throughout the United States.	31
4	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Teaching Assistants (G.T.A.s) Based on Data From 322 G.T.A.s at the University of Illinois	40
5	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Instructors Based on Data From 228 Instructors at the University of Illinois . .	41
6	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Assistant Professors (Asst. Profs.) Based on Data From 498 Asst. Profs. at the University of Illinois	42
7	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Associate Professors (Assoc. Profs.) Based on Data From 177 Assoc. Profs. at the University of Illinois	43
8	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Professors Based on Data From 194 Profs. at the University of Illinois.	44
9	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Teaching Assistants (G.T.A.s) Based on Data From 396 G.T.A.s From Throughout the United States	45
10	Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Instructors Based on Data From 578 Instructors From Throughout the United States.	46

Table *Page*

11 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Assistant Professors (Asst. Profs.) Based on Data From 717 Asst. Profs. From Throughout the United States 47

12 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Associate Professors (Assoc. Profs.) Based on Data From 362 Assoc. Profs. From Throughout the United States 48

13 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Professors Based on Data From 508 Profs. From Throughout the United States 49

14 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Freshmen Courses Based on Data From 1185 Freshman Courses Taught at the University of Illinois 52

15 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Sophomore Courses Based on Data From 442 Sophomore Courses Taught at the University of Illinois 53

16 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Junior and Senior Courses Based on Data From 238 Junior and Senior Courses Taught at the University of Illinois 54

17 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Courses Based on Data From 109 Graduate Courses Taught at the University of Illinois 55

18 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Freshmen Courses Based on Data From 2036 Freshman Courses Taught Throughout the United States. 56

19 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Sophomore Courses Based on Data From 860 Sophomore Courses Taught Throughout the United States. 57

20 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Junior and Senior Courses Based on Data From 452 Junior and Senior Courses Taught Throughout the United States. 58

Table *Page*

21 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Courses Based on Data From 220 Graduate Courses Taught Throughout the United States. 59

22 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for CEQ Subscales on 2784 Sections Taught at the University of Illinois 62

23 Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for CEQ Subscales on 5346 Sections Taught Throughout the United States. 64

LIST OF FIGURES

Figure *Page*

1 Sample Results From Form 66 3

2 Sample Results From Form 32 5

3 Sample Results From Optional Items. 7

ILLINOIS COURSE EVALUATION QUESTIONNAIRE (CEQ)
RESULTS INTERPRETATION MANUAL
FORM 66 AND FORM 32[1]

If one assumes that the purpose of education is to change student behavior as a result of some definite course of instruction, then an objective of educational research should be to determine what procedures or techniques best produce the desired behavioral changes. If the desired behavioral changes can be identified and defined, then the educational researcher can develop instruments to measure them.

Let us also assume that if one does in fact change student behavior in the specified direction, as a result of a course of instruction, then that course has been effective. If that course has been effective, then there could be a large number of elements in that course contributing to its effectiveness, such as the instructor, textbook, homework, course content, method of instruction, student interest, student attention, general student attitude towards the course, etc.

Assuming that all of the elements enumerated above can affect, directly or indirectly, student behavior in a course, and assuming that the students are the only ones who are constantly exposed to those elements, then they appear to be the most logical evaluators of the quality and effectiveness of the course elements. In addition, student opinions should indicate areas of rapport, degrees of communication, or the existence of problems and thereby help instructors as well as educational researchers describe and define the learning environment more concretely and objectively than they could through other types of measurements.

There are various ways of sampling student opinion. Some useful information can be derived simply by determining the number of students who agree or disagree with certain statements about the course. Or, sometimes, it proves useful to ask students to write short essays about the course in order to obtain information about their experiences under specific instructional situations. Such

---

[1]Form developed and copyrighted by the late Richard E. Spencer, 1965.

individualized procedures do not, however, provide an opportunity to compare the results of one course with results of another. Measurement is more useful when comparative results are available. More adequate interpretation may occur when: (a) the data have been collected in a standardized fashion with appropriate attention given to sampling, reliability, and validity, and (b) many instructors and instructional programs have been measured with the same instrument so that comparisons can be made.

Therefore, the primary purpose in developing the Illinois Course Evaluation Questionnaire (CEQ) was to devise an instrument which could elicit student opinions about a standardized set of statements relative to certain standardized aspects of an instructional program, and to develop norms which would enable an instructor to adequately compare his results with the results of other instructors.

This manual has been prepared to help instructors who use the Illinois Course Evaluation Questionnaire (CEQ) to interpret their results. A facsimile of the computer generated CEQ report of results is included which can be referred to in the following discussion. There may be a minimum of two pages or a maximum of four pages of results, depending upon the number of optional questionnaire items used, i.e., on Form 66 (items 51-100) or on Form 32 (items 25-76). An example of Form 66 and Form 32 appear in Appendix A and B, respectively.

For both forms instructor and course identification information is presented on the top of the first page of the results, followed by the statistics for the first portion of the standard CEQ items. For examples of the first page of Form 66 see Figure 1 and for Form 32 see Figure 2. The second page of the results presents the statistics for items 29-50 for Form 66 and item 21-24 for Form 32 and summary results. If optional items are used, they would appear on additional pages as shown in Figure 3.

Identification Information

(1) *COURSE AND INSTRUCTOR DATA*

Instructor Name: The instructor's last name appears on the first line of printing. It is circled on the sample output.

Course Code: A five-digit numeric course identification code is presented on the first line, just above "Expected Grade."

Course Name and Level: This is presented on the right side of the first line.

ILLINOIS COURSE EVALUATION QUESTIONNAIRE

19 900217200120(INSTR. NAME) 050001 (05961) 031372 (COURSE NAME AND LEVEL) (ADDITIONAL IDENTIFYING INFORMATION)

EXPECTED GRADE

A	B	C	D	E	OMIT
0.14	0.33	0.21	0.02	0.01	0.28

SEX OF STUDENT

FEMALE	MALE	OMIT
0.11	0.80	0.09

STUDENT STATUS

FRESH	SOPH	JUN	SEN	GRAD	OTHER	OMIT
0.06	0.54	0.22	0.12	0.00	0.00	0.06

REQUIRED/ ELEC

REQD	ELECT	OMIT
0.57	0.32	0.11

COLLEGE AFFIL.

AGRI	COMM	EDUC	ENGI	FAA	H.EC.	JOUR	LAS	LAW	P.ED.	MED	NURS	PHAR	DENT	V.MED	OTHER	OMIT
0.00	0.42	0.00	0.14	0.00	0.00	0.01	0.28	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.10

ITEM	SA	A	D	SD	OMIT	BEST	MEAN	S.D.	DECL	0123456789
1.	0.01	0.21	0.67	0.09	0.02	SD	2.85	0.58	5	*
2.	0.02	0.04	0.38	0.56	0.00	SD	3.47	0.69	6	*
3.	0.20	0.71	0.09	0.00	0.00	SA	3.11	0.53	5	*
4.	0.19	0.64	0.16	0.01	0.00	SA	3.01	0.63	7	*
5.	0.36	0.53	0.09	0.02	0.00	SA	3.22	0.70	6	*
6.	0.17	0.58	0.21	0.02	0.02	SA	2.91	0.69	6	*
7.	0.17	0.62	0.17	0.04	0.00	SA	2.91	0.71	5	*
8.	0.01	0.28	0.60	0.11	0.00	SD	2.81	0.63	5	*
9.	0.09	0.58	0.27	0.06	0.01	SA	2.71	0.71	6	*
10.	0.01	0.11	0.61	0.27	0.00	SD	3.13	0.64	5	*
11.	0.02	0.08	0.56	0.34	0.00	SD	3.22	0.68	5	*
12.	0.17	0.64	0.17	0.00	0.02	SA	3.00	0.59	5	*
13.	0.24	0.68	0.07	0.00	0.01	SA	3.18	0.53	6	*
14.	0.03	0.24	0.59	0.13	0.00	SD	2.82	0.70	5	*
15.	0.02	0.19	0.64	0.14	0.00	SD	2.91	0.65	5	*
16.	0.16	0.50	0.27	0.08	0.00	SA	2.73	0.82	4	*
17.	0.06	0.18	0.67	0.10	0.00	SD	2.81	0.69	3	*
18.	0.60	0.38	0.02	0.00	0.00	SA	3.58	0.54	5	*
19.	0.22	0.70	0.07	0.00	0.01	SA	3.16	0.52	6	*
20.	0.30	0.66	0.03	0.00	0.01	SA	3.27	0.52	6	*
21.	0.06	0.62	0.22	0.10	0.00	SA	2.63	0.74	4	*
22.	0.08	0.60	0.28	0.04	0.00	SA	2.71	0.67	2	*
23.	0.01	0.10	0.76	0.13	0.00	SD	3.01	0.53	4	*
24.	0.03	0.12	0.49	0.34	0.01	SD	3.16	0.77	6	*
25.	0.18	0.70	0.07	0.06	0.00	SA	3.00	0.69	5	*
26.	0.04	0.29	0.59	0.08	0.00	SD	2.70	0.68	3	*
27.	0.07	0.67	0.22	0.03	0.01	SA	2.78	0.62	4	*
28.	0.03	0.12	0.74	0.08	0.02	SD	2.89	0.58	5	*

A B C D E F G H I J K

Figure 1 Sample Course Item Rank 99

COPYRIGHT 1990 BOARD OF TRUSTEES UNIVERSITY OF ILLINOIS

29.	0.04	0.13	0.54	0.27	0.01	SD	3.04	0.77	5		*
30.	0.03	0.97	0.34	0.04	0.01	SA	2.60	0.63	2	*	
31.	0.01	0.07	0.52	0.39	0.01	SD	3.30	0.65	5		*
32.	0.04	0.18	0.64	0.12	0.01	SD	2.85	0.68	3	*	
33.	0.01	0.01	0.72	0.24	0.01	SD	3.21	0.51	6		*
34.	0.02	0.06	0.68	0.23	0.01	SD	3.13	0.61	5		*
35.	0.18	0.67	0.10	0.04	0.01	SA	2.99	0.68	6		*
36.	0.20	0.67	0.10	0.02	0.01	SA	3.06	0.63	5		*
37.	0.06	0.24	0.61	0.08	0.01	SD	2.72	0.69	4		*
38.	0.00	0.03	0.74	0.21	0.01	SD	3.18	0.47	6		*
39.	0.16	0.62	0.20	0.01	0.01	SD	2.07	0.64	2	*	
40.	0.12	0.62	0.20	0.03	0.02	SA	2.85	0.67	5		*
41.	0.09	0.31	0.59	0.00	0.01	SD	2.51	0.66	2	*	
42.	0.13	0.76	0.09	0.01	0.01	SA	3.02	0.52	5		*
43.	0.06	0.22	0.69	0.02	0.01	SD	2.69	0.61	3	*	
44.	0.00	0.01	0.73	0.23	0.02	SD	3.23	0.45	5		*
45.	0.16	0.47	0.32	0.04	0.01	SD	2.26	0.78	4		*
46.	0.03	0.10	0.61	0.24	0.01	SD	3.08	0.69	5		*
47.	0.31	0.69	0.08	0.00	0.01	SA	3.24	0.58	5		*
48.	0.04	0.19	0.64	0.10	0.02	SD	2.82	0.67	4		*
49.	0.11	0.74	0.09	0.04	0.01	SA	2.93	0.62	4		*
50.	0.17	0.63	0.13	0.06	0.01	SA	2.92	0.73	5		*

--SUBSCORE--	ITEMS	RESP	MEAN	S.D.	REL	RANK	LEVEL	INSTI	COLLEGE	OVERALL
GENERAL ATTITUDE	8	0.99	3.15	0.66	0.90	NONE	6	5	NONE	5
METHOD	8	0.99	2.86	0.66	0.88	NONE	5	5	NONE	5
CONTENT	8	0.99	2.83	0.69	0.88	NONE	5	4	NONE	4
INTEREST	8	0.99	2.83	0.76	0.94	NONE	5	5	NONE	5
INSTRUCTOR	8	0.99	3.17	0.64	0.81	NONE	5	5	NONE	5
SPECIFIC ITEMS	10	0.99	2.86	0.68	0.68	NONE	5	5	NONE	4
TOTAL	50	0.99	2.95	0.70	0.97	NONE	5	5	NONE	5

SAMPLE SIZE = 90

L M N O P Q R S T U

ILLINOIS COURSE EVALUATION QUESTIONNAIRE RESULTS

1900260132253 (INSTR. NAME) 024001 28317 011772 (COURSE NAME AND LEVEL) (ADDITIONAL IDENTIFYING INFORMATION)

SEX

FEMALE	MALE	OMIT
0.62	0.15	0.23

STATUS

FRESH	SOPH	JUN	SEN	GRAD	OTHER	OMIT
0.12	0.73	0.08	0.08	0.00	0.00	0.00

COLLEGE

AGRI	COMM	EDUC	ENG	FAA	H EC	JOUR	LAS	LAW	P ED	MED	NURS	PHAR	DENT	V MED	OTHER	OMIT
0.04	0.00	0.15	0.04	0.04	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EXPECTED GRADE

A	B	C	D	E	OMIT
0.12	0.50	0.38	0.00	0.00	0.00

COURSE

REQ	ELECT	OMIT
0.19	0.81	0.00

COURSE RANK

1	2	3	4	5	6	OMIT
0.27	0.38	0.19	0.00	0.15	0.00	0.00

INSTRUCTOR RANK

1	2	3	4	5	6	OMIT
0.46	0.15	0.23	0.04	0.12	0.00	0.00

ITEM	SA	A	D	SD	OMIT	REST	MEAN	S.D.	DEC!	0123456789
1.	0.42	0.38	0.15	0.04	0.00	SA	3.19	0.85	5	* *
2.	0.42	0.50	0.04	0.00	0.04	SA	3.40	0.58	9	* *
3.	0.27	0.58	0.12	0.04	0.00	SA	3.08	0.74	3	* *
4.	0.23	0.42	0.27	0.08	0.00	SA	2.81	0.90	7	* *
5.	0.42	0.38	0.12	0.08	0.00	SA	3.15	0.92	8	* *
6.	0.42	0.38	0.12	0.08	0.00	SA	3.15	0.92	9	* *
7.	0.46	0.35	0.12	0.08	0.00	SA	3.19	0.94	7	* *
8.	0.50	0.42	0.04	0.04	0.00	SA	3.38	0.75	8	* *
9.	0.27	0.58	0.08	0.00	0.08	SA	3.21	0.59	8	* *
10.	0.81	0.19	0.00	0.00	0.00	SA	3.81	0.40	7	* *
11.	0.58	0.42	0.00	0.00	0.00	SA	3.58	0.50	9	* *
12.	0.46	0.46	0.08	0.00	0.00	SA	3.38	0.66	6	* *
13.	0.00	0.46	0.27	0.27	0.00	SA	2.19	0.85	0	* *
14.	0.35	0.38	0.23	0.04	0.00	SA	3.04	0.87	7	* *
15.	0.35	0.46	0.12	0.08	0.00	SA	3.08	0.89	6	* *
16.	0.27	0.31	0.31	0.12	0.00	SA	2.73	1.00	5	* *
17.	0.15	0.65	0.19	0.00	0.00	SA	2.96	0.60	7	* *
18.	0.35	0.50	0.08	0.08	0.00	SA	3.12	0.86	6	* *
19.	0.46	0.27	0.19	0.08	0.00	SA	3.12	0.99	5	* *
20.	0.38	0.58	0.04	0.00	0.00	SA	3.35	0.56	9	* *

A B C D E F G H I J K

Figure 2. Sample results from Form 32

COPYRIGHT BOARD OF TRUSTEES, UNIVERSITY OF ILLINOIS, 1972

21.	0.42	0.54	0.04	0.00	0.00	SA	3.38	0.57	8		*
22.	0.46	0.38	0.04	0.04	0.08	SA	3.38	0.77	6	*	
23.	0.23	0.58	0.12	0.08	0.00	SA	2.96	0.82	5	*	
24.	0.35	0.31	0.23	0.12	0.00	SA	2.88	1.03	6	*	

FIGURE 2 (CONT.)

--SUBSCORE--	ITEMS	RESP	MEAN	S.D.	REL	RANK	LEVEL	INSTI	COLL-EGE	OVER-ALL
ATTITUDE	4	1.00	3.15	0.81	0.82	NONE	NONE	NONE	NONE	5
METHOD	4	1.00	2.88	0.98	0.97	NONE	NONE	NONE	NONE	6
CONTENT	4	1.00	3.32	0.64	0.82	NONE	NONE	NONE	NONE	8
INTEREST	4	1.00	3.12	0.88	0.96	NONE	NONE	NONE	NONE	7
INSTRUCTOR	4	0.98	3.36	0.78	0.89	NONE	NONE	NONE	NONE	7
SPECIFIC ITEMS	4	0.97	3.04	0.82	0.16	NONE	NONE	NONE	NONE	5

SAMPLE SIZE = 26

L M N O P Q R S T U

COMMERCIAL FORM-FEED • MOORE BUSINESS FORMS, INC.

ILLINOIS COURSE EVALUATION QUESTIONNAIRE

EXTRA ITEMS 25 +

INSTR. NAME COURSE CODE

ITEM	SA	A	D	SD	OMIT	BEST	MEAN	S.D.
1.	0.49	0.41	0.07	0.00	0.03	SA	3.43	0.63
2.	0.59	0.35	0.04	0.00	0.03	SA	3.57	0.57
3.	0.55	0.39	0.04	0.00	0.03	SA	3.53	0.57
4.	0.05	0.07	0.48	0.35	0.04	SD	3.19	0.79
5.	0.30	0.48	0.17	0.02	0.03	SA	3.09	0.75
6.	0.04	0.26	0.41	0.26	0.03	SD	2.91	0.83
7.	0.37	0.50	0.08	0.01	0.04	SA	3.28	0.66
8.	0.39	0.48	0.09	0.01	0.03	SA	3.28	0.68
9.	0.04	0.06	0.39	0.48	0.03	SD	3.36	0.78
10.	0.44	0.47	0.06	0.00	0.03	SA	3.39	0.61
11.	0.03	0.10	0.47	0.37	0.03	SD	3.22	0.75
12.	0.04	0.04	0.39	0.51	0.03	SD	3.41	0.74
13.	0.02	0.08	0.47	0.40	0.03	SD	3.28	0.71
14.	0.09	C.14	0.48	0.26	0.04	SA	2.06	0.88
15.	0.28	0.45	0.19	0.04	0.03	SA	3.01	0.81
16.	0.02	0.03	0.45	0.48	0.03	SD	3.43	0.64
17.	0.40	0.52	0.04	0.01	0.04	SA	3.35	0.61
18.	0.07	0.19	0.46	0.25	0.03	SD	2.92	0.86
19.	0.49	0.46	0.02	0.01	0.03	SA	3.48	0.56
20.	0.09	0.20	0.37	0.31	0.04	SD	2.94	0.94
21.	0.37	0.51	0.07	0.02	0.04	SA	3.28	0.67
22.	0.02	0.19	0.53	0.23	0.03	SD	3.00	0.72
23.	0.06	0.16	0.50	0.25	0.03	SD	2.96	0.82
24.	0.29	0.49	0.14	0.06	0.03	SA	3.04	0.82
25.	0.21	0.59	0.12	0.04	0.04	SA	3.01	0.72
26.	0.54	0.37	0.06	0.01	0.03	SA	3.48	0.63
27.	0.53	0.39	0.02	0.01	0.05	SA	3.51	0.60
28.	0.07	0.18	0.51	0.17	0.08	SD	2.83	0.81
29.	0.26	0.43	0.23	0.04	0.04	SA	2.94	0.82
30.	0.40	0.51	0.04	0.01	0.05	SA	3.35	0.62
31.	0.32	0.53	0.10	0.02	0.04	SA	3.19	0.70
32.	0.18	0.46	0.29	0.03	0.05	SA	2.83	0.76
33.	0.39	0.49	0.06	0.01	0.05	SA	3.33	0.64
34.	0.59	0.27	0.09	0.02	0.04	SD	1.51	0.73
35.	0.26	0.41	0.17	0.11	0.05	SA	2.86	0.95
36.	0.32	0.52	0.11	0.01	0.04	SA	3.19	0.67
37.	0.08	0.31	0.48	0.08	0.05	SA	2.40	0.76
38.	0.43	0.41	0.08	0.03	0.05	SA	3.32	0.74
39.	0.11	0.36	0.40	0.09	0.04	SA	2.52	0.82
40.	0.37	0.49	0.12	0.03	0.05	SA	3.22	0.76
41.	0.36	0.48	0.09	0.03	0.05	SA	3.22	0.74
42.	0.33	0.53	0.08	0.02	0.05	SA	3.22	0.68
43.	0.03	0.18	0.50	0.25	0.05	SD	3.02	0.75
44.	0.07	0.06	0.53	0.30	0.05	SD	3.10	0.82
45.	0.24	0.33	0.29	0.09	0.05	SD	2.24	0.95
46.	0.47	0.44	0.03	0.01	0.05	SA	3.46	0.58

A B C D E F G H I

Figure 3. Sample results from optional items

Figure 3 (cont.)

47.	0.35	0.54	0.05	0.02	0.05	SA	3.27	0.65
48.	0.19	0.41	0.29	0.07	0.04	SA	2.75	0.86
49.	0.14	0.46	0.34	0.03	0.05	SA	2.73	0.74
50.	0.03	0.06	0.32	0.55	0.05	SD	3.44	0.76
51.	0.49	0.40	0.03	0.01	0.06	SA	3.47	0.62

--SUBSCORE--	ITEMS	RESP	MEAN	S.D.	REL
TOTAL	51	0.96	3.10	0.84	0.91

SAMPLE SIZE = 196

L M N O P

Additional Identifying Information: This may follow the *course name and level* if it is submitted by the instructor (i.e., section code, etc.).

(2) *STUDENT DATA*

Expected Grade in the Course: This is presented as the percentage of students who expect an A, B, C, D, or E, and who omitted (OMIT) the question.

Sex of Student: The percentage of males and females.

Student Status: The percentage of freshmen, sophomores, juniors, seniors, graduate students, and others.

Required or Elective: The percentage of students taking the course to fulfill a requirement or who chose it as an elective.

College Affiliation: The percentage of students by their college affiliation.

Sample Size: The number of students responding to the CEQ is presented below the summary results on the second page.

The student data are presented so that the instructor may compare the student characteristics of one class section with another. These characteristics may lead to different interpretations of results since some class sections are composed of students who are quite different from other sections. If the CEQ results differ from one section to another, the student characteristics may lead to a more adequate understanding or interpretation of these differences.

Item Responses 1-50 or 1-24

Several columns of figures reporting the students' responses for each item are presented following the *student data*. Due to the limited printing space, one must consult the CEQ Forms (Appendix A or B) to determine what the specific items are.

For explanatory purposes, the sample results presented in Figures 1, 2, and 3 have lettered codes printed at the bottom of each of the columns. The interpretation of the lettered columns is as follows:

A: Contains the ITEM number, so one can refer back to the CEQ Form for the specific item statement.

B: The proportion of students strongly agreeing (SA) with this item.

C: The proportion of students agreeing (A) with this item.

D: The proportion of students disagreeing (D) with this item.

E: The proportion of students strongly disagreeing (SD) with this item.

F: The proportion of students leaving this item blank (OMIT).

G: This column indicates the most favorable response for each item, either SA or SD. On Form 66, 24 of the items are assigned the most favorable response of SA and 26 are assigned the most favorable response of SD. On Form 32 all of the items are assigned the most favorable response of SA.

H: The numerical average (MEAN) of the SA, A, D, and SD responses is presented for each item. The MEAN is obtained by weighting the positively stated items, SA = 4, A = 3, D = 2, and SD = 1, and the negatively stated items, SA = 1, A = 2, D = 3, and SD = 4.

I: This column contains the standard deviation (S.D.) of the responses for each item.

J: This column presents the all university norm decile (DECL), i.e., a comparison of this class' MEAN responses with those obtained in other classes throughout the university. This comparison group is referred to as the "norm group." Deciles range from a low of 0 to a high of 9 and may be interpreted as follows:

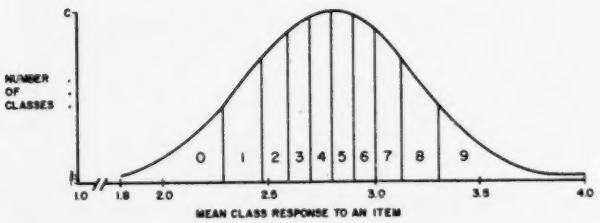
0 indicates that the course MEAN falls in the lowest 10 percent of the norm group,

1 indicates that there are 10 to 19 percent of the norm group who received lower means,

2 indicates that there are 20 to 29 percent of the norm group who received lower means,

and so on, through 9.

The distribution of class results in the norms can be exemplified by using a distribution based on an item with a MEAN of 2.8 and a Standard Deviation of .40 as follows:



The distribution of scores was divided into ten equal size groups (hence the term decile). The highest 10% of the classes were assigned the decile of 9; the next 10% the decile of 8; etc. Each decile contains an equal number of classes. The same process was followed for the subscores. Interpretation of these deciles will be discussed later in the manual, however, the actual norm decile intervals for the items are presented in Appendix C.

K: The *Decile Profile* is presented in this column by printing an asterisk corresponding to the appropriate decile. The asterisks which are found on the right side of the column (deciles of 7, 8, or 9) should be considered "good." Those to the left (deciles of 0, 1, or 2) should be considered "poor." Those in the middle (deciles 3, 4, 5, or 6) should be considered "average."

Subscale Responses

The second page of the results presents the questionnaire SUBSCORES. You will note that there are six subscores and one total score. The items which are grouped into each subscale are presented in Table 1. The total score is a score made up of all items.

L: The number of ITEMS comprising the subscore.

M: The percentage of students who responded (RESP) to the items included in the subscale.

N: The MEAN response based on the items in each subscale.

O: The standard deviation (S.D.) of the responses.

P: The reliability (REL) is based on a split-half correlation (odd-even) and indicates the confidence

TABLE 1

CEQ Items Grouped by Subscales

01. General Course Attitude

2. It was a waste of time.*
3. Overall, the course was good.
11. Not much was gained by taking this course.*
20. The course increased my general knowledge.
25. It was a very worthwhile course.
29. One of my poorest courses.*
34. Course was not very helpful.*
49. The course was quite useful.

02. Method of Instruction

1. I learn more when other teaching methods are used.*
6. More courses should be taught this way.
8. I would have preferred another method of teaching in this course.*
27. The way in which this course was taught results in better student learning.
36. I think that the course was taught quite well.
37. I would prefer a different method of instruction.*
48. Another method of instruction should have been employed.*
50. I would take another course that was taught this way.

03. Course Content

13. The course material seemed worthwhile.
19. The content of the course was good.
26. Some things were not explained very well.*
28. The course material was too difficult.*
30. Material in the course was easy to follow.
39. At times I was confused.*
40. Excellent course content.
44. The content of the course was too elementary.*

*These items appear on Form 66 only.

TABLE 1 (Continued)

04. Interest and Attention

7. The course held my interest.
9. It was easy to remain attentive.
14. It was difficult to remain attentive.*
22. Held my attention throughout the course.
24. Uninteresting course.*
35. It was quite interesting.
45. Some days I was not very interested in this course.*
46. It was quite boring.*

05. Instructor

5. The instructor seemed to be interested in students as persons.
10. The instructor did not synthesize, integrate, or summarize effectively.*
12. The instructor encouraged the development of new viewpoints and appreciations.
15. Instructor did not review promptly and in such a way that students could understand their weaknesses.*
18. The instructor had a thorough knowledge of his subject matter.
23. The demands of the students were not considered by the instructor.*
31. The instructor seemed to consider teaching as a chore or routine activity.*
47. The instructor exhibited professional dignity and bearing in the classroom.

06. Specific Items

4. The textbook was very good.
16. Homework assignments were helpful in understanding the course.
17. There was not enough student participation for this type of course.*
21. The types of test questions used were good.
32. More outside reading is necessary.*
33. Course material was poorly organized.*
38. The pace of the course was too slow.*
41. The examinations were too difficult.*
42. Generally, the course was well organized.
43. Ideas and concepts were developed too rapidly.*

one can place in the results for this group of students. Reliability figures over .90 can be considered very good; .70 and above are probably acceptable; and below .70 are questionable. Reliability figures below .70 may be due to small samples of students.

Q: The RANK norm compares the course to all courses of instructors at that same rank. The actual norm decile intervals are presented in Appendix D.

R: The LEVEL norm compares the course to all courses at that same course level (i.e., Freshmen, Sophomore, Junior, Senior, or Graduate). The actual norm decile intervals are presented in Appendix E.

S: The institution (INSTI) norm compares the course to all courses at that university (i.e., University of Illinois). The actual norm decile intervals are presented in Appendix F.

T: The college (COLL) norm compares the course to all courses in the appropriate college within a university (e.g., Liberal Arts and Sciences).

U: The OVERALL norm compares the course to all courses that have used the CEQ throughout the United States. The actual norm decile intervals are presented in Appendix G.

The Interpretation of Results

The results of both item responses and subscores and total scores are reported in deciles (see columns J and K for item deciles and columns Q, R, S, T, and U for total and subscore deciles). *These are the most important results to look at to adequately understand and interpret the results.* Deciles at the upper end of the scale (i.e., 7, 8, 9) can be considered highly positive and indicative of good instructors and courses, while deciles of 0, 1, or 2 can be considered quite negative and indicative of relatively poor instructors and courses. Deciles between 3 and 6 should be considered average. Although no manual can set forth an explicit interpretation of results under all conditions, for all classes and all instructors, some general guidelines can be offered. Individual interpretation can be explored in greater detail in conference with the Measurement and Research Division staff. Generally, however, the higher an instructor's decile, the more satisfied he can be; the lower his decile, the more concerned. The research on the CEQ (Spencer & Aleamoni, 1969; Swanson & Sisson, 1971; Aleamoni, 1972) and other student evaluation systems (Costin, Greenough & Menges, 1971) has

shown that students are, to a considerable extent, valid judges of instructors and instruction; at the least, the opinions of the students contribute to a better understanding of the instructional process. There may be many factors beyond the instructor's control that could affect the student responses. If the instructor is aware of such factors operating within the instructional setting, he should keep them in mind when interpreting the results.

Student opinion polls may suffer varying degrees of invalidity such as:

1. Each student may have different expectations and personal goals for a course.
2. Students' frames of reference may be considerably different.
3. The possibility that student opinions may not be a completely valid criterion of teaching effectiveness.
4. A valid concept of good teaching may not be available so that the identification of good teaching by any means may not be appropriate.
5. Students may be indifferent or insincere when answering the questionnaire.

However, students do observe teaching more than anyone else. Insofar as learning is a function of the attitudes and opinions held by learners, student opinions *may* indicate areas of rapport, degrees of communication, or the existence of problems. Information gathered from student questionnaires, therefore, may help instructors describe and define the learning environment more concretely and objectively than they can through other measurements. The evidence in research (Spencer & Aleamoni, 1969; Swanson & Sisson, 1971) on the subject indicates quite strongly that overall they tend to agree with "expert" judges on the effectiveness of instruction.

There are various ways of sampling student opinion. Some useful information can be derived simply by determining the number of students who agree or disagree with certain statements about the course. Or, sometimes, it proves useful to ask students to write short essays about the course in order to obtain information about their experiences under specific instructional situations. Such individualized procedures do not, however, provide an opportunity to compare the results of one course with results from another. Measurement is most useful when comparative results are available. More adequate interpretation may occur when the data have been collected in a standardized fashion, and when many instructors and courses have been measured with the same instrument.

Therefore, the primary purpose in the development of this questionnaire was to devise an instrument which elicits opinions about a standardized set of statements relative to standardized aspects of an instructional program and to develop comparative and representative norms which would enable an instructor to adequately compare his results with the results of other instructors.

One may also look at the different results for the subscales to obtain an indication of major areas of strengths and weaknesses in the course. Similarly, one may look at the item results as indicative of areas that need improvement. The CEQ is not completely diagnostic of teaching or instruction--no instrument can be. There are too many specific variables in a learning environment which can be scrutinized to measure or evaluate them all on a questionnaire, and some would be valuable in one setting and not in another. The CEQ provides a means whereby some evaluation of the teaching process can occur; other means can be arranged, and are available such as asking more diagnostic questions in the optional item section. This is only one of the many pieces of information which can contribute to a better learning environment. It is important to recognize, however, that student opinions are in existence and do affect learning--and they do provide a source of quite reliable data relative to the effectiveness of instruction.

The research on student opinion questionnaires, in general, would seem to indicate that there is some reasonable relationship between teaching effectiveness and student judgments of this effectiveness. However, it is far from perfect; and in some cases, the relationship is completely absent. It is, therefore, of extreme importance that the results of this questionnaire be considered quite tentative. First, one must assume that the questionnaire is only a tentative indication of "real" student attitudes. It is not a perfect measure. Secondly, the questionnaire collects *some* opinions only. It does not sample all opinions that may exist about a course. Thirdly, the opinions that develop about a course are developed through a variety of causes and not because of the instructor alone.

It is recommended that the results of a one semester sample be treated quite tentatively until validated by measures over two or more semesters.

On the basis of the research evidence to date and the CEQ's high reliability, extremely low scores on a particular subscale should indicate problem areas needing immediate attention. On the other hand, stable high scores should point to an effective instructional program as viewed by students.

If you have any questions regarding your particular results, please consult with the Measurement and Research Division, Office of Instructional Resources, 307 Engineering Hall, Urbana, Illinois 61801, (217) 333-3490.

REFERENCES

Aleamoni, L. M. A review of recent reliability and validity studies on the Illinois course evaluation questionnaire (CEQ). Research Memorandum No. 127. Urbana, Illinois: Measurement and Research Division, Office of Instructional Resources, University of Illinois, 1972.

Spencer, R. E. & Aleamoni, L. M. The Illinois course evaluation questionnaire: A description of its development and a report of some of its results. Research Report No. 292. Urbana, Illinois: Measurement and Research Division, Office of Instructional Resources, University of Illinois, 1969.

Swanson, R. A. & Sisson, D. J. The development, evaluation, and utilization of a departmental faculty appraisal system. *Journal of Industrial Teacher Education*, 1971, *9*(1), 64-79.

Costin, F., Greenough, W. T. & Menges, R. J. Student ratings of college teaching: Reliability, validity, and usefulness. *Review of Educational Research*, 1971, *41*, 511-535.

APPENDIX A

Illinois Course Evaluation Questionnaire
(Form 66)

ILLINOIS COURSE EVALUATION QUESTIONNAIRE — FORM 66

Measurement and Research Division, Office of Instructional Resources, UNIVERSITY OF ILLINOIS © By Richard E. Spencer, 1965

IDENTIFICATION INFORMATION — STUDENT NUMBER

COURSE CODE

EXPECTED GRADE IN THIS COURSE

SEX: MALE, FEMALE

TODAY'S DATE: MO. DAY YR.

MARK YOUR COLLEGE: AGRIC., COMM. & BA., EDUC., ENGIN., F & APPLARTS, HOME EC., JOURN. COMM., LAS, LAW, PHYS. ED., MEDICINE, NURSING, PHARMACY, DENTISTRY, VET. MED., OTHER

ARE YOU: FRESHMAN, SOPHOMORE, JUNIOR, SENIOR, GRAD., OTHER

CAMPUS LOCATION: URBANA, CHI. CIR., MED. CEN., EXTENSION, OTHER

DIRECTIONS: 1. PRINT INSTRUCTOR'S LAST NAME HERE ——————
2. COMPLETE IDENTIFICATION INFORMATION TO THE RIGHT.
3. BE SURE TO MARK ITEM RESPONSES CAREFULLY AND COMPLETELY-ONE RESPONSE PER ITEM. (SEE SAMPLE MARK AND RESPONSE CODE)
4. USE PENCIL ONLY-DO NOT USE PEN, BALL POINT OR INK OF ANY KIND.

1	SA	A	D	SD	I learn more when other teaching methods are used.
2	SA	A	D	SD	It was a waste of time.
3	SA	A	D	SD	Overall, the course was good.
4	SA	A	D	SD	The textbook was very good.
5	SA	A	D	SD	The instructor seemed to be interested in students as persons.
6	SA	A	D	SD	More courses should be taught this way.
7	SA	A	D	SD	The course held my interest.
8	SA	A	D	SD	I would have preferred another method of teaching in this course.
9	SA	A	D	SD	It was easy to remain attentive.
10	SA	A	D	SD	The instructor did not synthesize, integrate or summarize effectively.
11	SA	A	D	SD	Not much was gained by taking this course.
12	SA	A	D	SD	The instructor encouraged the development of new viewpoints and appreciations.
13	SA	A	D	SD	The course material seemed worthwhile.
14	SA	A	D	SD	It was difficult to remain attentive.
15	SA	A	D	SD	Instructor did not review promptly and in such a way that students could understand their weaknesses.
16	SA	A	D	SD	Homework assignments were helpful in understanding the course.
17	SA	A	D	SD	There was not enough student participation for this type of course.
18	SA	A	D	SD	The instructor had a thorough knowledge of his subject matter.
19	SA	A	D	SD	The content of the course was good.
20	SA	A	D	SD	The course increased my general knowledge.
21	SA	A	D	SD	The types of test questions used were good.
22	SA	A	D	SD	Held my attention throughout the course.
23	SA	A	D	SD	The demands of the students were not considered by the instructor.
24	SA	A	D	SD	Uninteresting course.
25	SA	A	D	SD	It was a very worthwhile course.
26	SA	A	D	SD	Some things were not explained very well.
27	SA	A	D	SD	The way in which this course was taught results in better learning.
28	SA	A	D	SD	The course material was too difficult.
29	SA	A	D	SD	One of my poorest courses.
30	SA	A	D	SD	Material in the course was easy to follow.
31	SA	A	D	SD	The instructor seemed to consider teaching as a chore or routine activity.
32	SA	A	D	SD	More outside reading is necessary.
33	SA	A	D	SD	Course material was poorly organized.
34	SA	A	D	SD	Course was not very helpful.
35	SA	A	D	SD	It was quite interesting.
36	SA	A	D	SD	I think that the course was taught quite well.
37	SA	A	D	SD	I would prefer a different method of instruction.
38	SA	A	D	SD	The pace of the course was too slow.
39	SA	A	D	SD	At times I was confused.
40	SA	A	D	SD	Excellent course content.
41	SA	A	D	SD	The examinations were too difficult.
42	SA	A	D	SD	Generally, the course was well organized.
43	SA	A	D	SD	Ideas and concepts were developed too rapidly.
44	SA	A	D	SD	The content of the course was too elementary.
45	SA	A	D	SD	Some days I was not very interested in this course.
46	SA	A	D	SD	It was quite boring.
47	SA	A	D	SD	The instructor exhibited professional dignity and bearing in the classroom.
48	SA	A	D	SD	Another method of instruction should have been employed.
49	SA	A	D	SD	The course was quite useful.
50	SA	A	D	SD	I would take another course that was taught this way.

SAMPLE MARKS:

USE PENCIL ONLY

a) SA ■ D SD
b) SA A ■ SD
c) ■ A D SD
d) SA A D ■

RESPONSE CODE:

MARK	SA	IF YOU STRONGLY AGREE WITH THE ITEM
MARK	A	IF YOU AGREE MODERATELY WITH THE ITEM
MARK	D	IF YOU DISAGREE MODERATELY WITH THE ITEM
MARK	SD	IF YOU STRONGLY DISAGREE WITH THE ITEM

IF PART II OR III IS TO BE USED MARK HERE ——→

COMPLETE SECTIONS BELOW ACCORDING TO YOUR INSTRUCTOR'S DIRECTIONS:

OPTIONAL PART II ITEMS 51-75

51	SA	A	D	SD	
52	SA	A	D	SD	
53	SA	A	D	SD	
54	SA	A	D	SD	
55	SA	A	D	SD	
56	SA	A	D	SD	
57	SA	A	D	SD	
58	SA	A	D	SD	
59	SA	A	D	SD	
60	SA	A	D	SD	
61	SA	A	D	SD	
62	SA	A	D	SD	
63	SA	A	D	SD	
64	SA	A	D	SD	
65	SA	A	D	SD	
66	SA	A	D	SD	
67	SA	A	D	SD	
68	SA	A	D	SD	
69	SA	A	D	SD	
70	SA	A	D	SD	
71	SA	A	D	SD	
72	SA	A	D	SD	
73	SA	A	D	SD	
74	SA	A	D	SD	
75	SA	A	D	SD	

OPTIONAL PART III ITEMS 76-100

76	SA	A	D	SD	
77	SA	A	D	SD	
78	SA	A	D	SD	
79	SA	A	D	SD	
80	SA	A	D	SD	
81	SA	A	D	SD	
82	SA	A	D	SD	
83	SA	A	D	SD	
84	SA	A	D	SD	
85	SA	A	D	SD	
86	SA	A	D	SD	
87	SA	A	D	SD	
88	SA	A	D	SD	
89	SA	A	D	SD	
90	SA	A	D	SD	
91	SA	A	D	SD	
92	SA	A	D	SD	
93	SA	A	D	SD	
94	SA	A	D	SD	
95	SA	A	D	SD	
96	SA	A	D	SD	
97	SA	A	D	SD	
98	SA	A	D	SD	
99	SA	A	D	SD	
100	SA	A	D	SD	

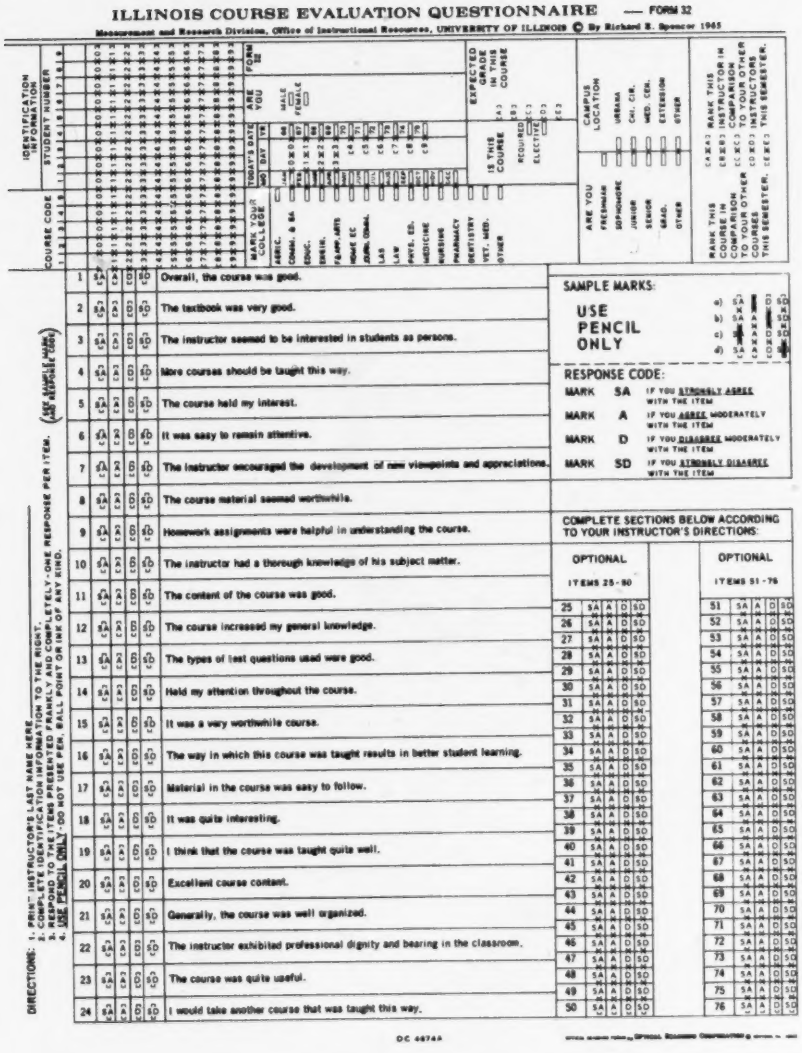
DC 1728 A

APPENDIX B

Illinois Course Evaluation Questionnaire
(Form 32)

ILLINOIS COURSE EVALUATION QUESTIONNAIRE — FORM 32

Measurement and Research Division, Office of Instructional Resources, UNIVERSITY OF ILLINOIS © By Richard B. Spencer 1965



DIRECTIONS:
1. PRINT INSTRUCTOR'S LAST NAME HERE
2. COMPLETE IDENTIFICATION INFORMATION TO THE RIGHT.
3. RESPOND TO THE ITEMS PRESENTED FRANKLY AND COMPLETELY—ONE RESPONSE PER ITEM.
4. USE PENCIL ONLY—DO NOT USE PEN, BALL POINT OR INK OF ANY KIND.

(SEE SAMPLE MARK AT RIGHT BEFORE YOU BEGIN)

1	SA A D SD	Overall, the course was good.
2	SA A D SD	The textbook was very good.
3	SA A D SD	The instructor seemed to be interested in students as persons.
4	SA A D SD	More courses should be taught this way.
5	SA A D SD	The course held my interest.
6	SA A D SD	It was easy to remain attentive.
7	SA A D SD	The instructor encouraged the development of new viewpoints and appreciations.
8	SA A D SD	The course material seemed worthwhile.
9	SA A D SD	Homework assignments were helpful in understanding the course.
10	SA A D SD	The instructor had a thorough knowledge of his subject matter.
11	SA A D SD	The content of the course was good.
12	SA A D SD	The course increased my general knowledge.
13	SA A D SD	The types of test questions used were good.
14	SA A D SD	Held my attention throughout the course.
15	SA A D SD	It was a very worthwhile course.
16	SA A D SD	The way in which this course was taught results in better student learning.
17	SA A D SD	Material in the course was easy to follow.
18	SA A D SD	It was quite interesting.
19	SA A D SD	I think that the course was taught quite well.
20	SA A D SD	Excellent course content.
21	SA A D SD	Generally, the course was well organized.
22	SA A D SD	The instructor exhibited professional dignity and bearing in the classroom.
23	SA A D SD	The course was quite useful.
24	SA A D SD	I would take another course that was taught this way.

SAMPLE MARKS:

USE PENCIL ONLY

a) b) c) d)

RESPONSE CODE:

MARK	SA	IF YOU STRONGLY AGREE WITH THE ITEM
MARK	A	IF YOU AGREE MODERATELY WITH THE ITEM
MARK	D	IF YOU DISAGREE MODERATELY WITH THE ITEM
MARK	SD	IF YOU STRONGLY DISAGREE WITH THE ITEM

COMPLETE SECTIONS BELOW ACCORDING TO YOUR INSTRUCTOR'S DIRECTIONS:

OPTIONAL ITEMS 25-50

25	SA	A	D	SD	
26	SA	A	D	SD	
27	SA	A	D	SD	
28	SA	A	D	SD	
29	SA	A	D	SD	
30	SA	A	D	SD	
31	SA	A	D	SD	
32	SA	A	D	SD	
33	SA	A	D	SD	
34	SA	A	D	SD	
35	SA	A	D	SD	
36	SA	A	D	SD	
37	SA	A	D	SD	
38	SA	A	D	SD	
39	SA	A	D	SD	
40	SA	A	D	SD	
41	SA	A	D	SD	
42	SA	A	D	SD	
43	SA	A	D	SD	
44	SA	A	D	SD	
45	SA	A	D	SD	
46	SA	A	D	SD	
47	SA	A	D	SD	
48	SA	A	D	SD	
49	SA	A	D	SD	
50	SA	A	D	SD	

OPTIONAL ITEMS 51-76

51	SA	A	D	SD	
52	SA	A	D	SD	
53	SA	A	D	SD	
54	SA	A	D	SD	
55	SA	A	D	SD	
56	SA	A	D	SD	
57	SA	A	D	SD	
58	SA	A	D	SD	
59	SA	A	D	SD	
60	SA	A	D	SD	
61	SA	A	D	SD	
62	SA	A	D	SD	
63	SA	A	D	SD	
64	SA	A	D	SD	
65	SA	A	D	SD	
66	SA	A	D	SD	
67	SA	A	D	SD	
68	SA	A	D	SD	
69	SA	A	D	SD	
70	SA	A	D	SD	
71	SA	A	D	SD	
72	SA	A	D	SD	
73	SA	A	D	SD	
74	SA	A	D	SD	
75	SA	A	D	SD	
76	SA	A	D	SD	

DC 4674A

APPENDIX C

Decile Norm Cut-off
Scores for CEQ Items

Table 2

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for

CEQ Items on 2784 Sections Taught at the University of Illinois[1]

Item	Type of Mean	Decile										Mean	S.D.
		0	1	2	3	4	5	6	7	8	9		
1	R.S.	1.000	2.245	2.435	2.565	2.665	2.765	2.865	2.965	3.065	3.225	4.000	2.7598	.3863
	N.A.		2.265	2.435	2.557	2.661	2.760	2.858	2.963	3.084	3.254			
2	R.S.		2.725	2.945	3.105	3.225	3.325	3.425	3.535	3.645	3.765		3.2960	.3956
	N.A.		2.790	2.964	3.088	3.195	3.296	3.397	3.504	3.628	3.802			
3	R.S.		2.535	2.725	2.865	2.965	3.055	3.145	3.245	3.375	3.545		3.0563	.3894
	N.A.		2.558	2.729	2.852	2.957	3.056	3.156	3.261	3.383	3.555			
4	R.S.		1.995	2.165	2.305	2.435	2.555	2.665	2.765	2.915	3.125		2.5530	.4669
	N.A.		1.955	2.161	2.308	2.434	2.553	2.672	2.798	2.945	3.151			
5	R.S.		2.615	2.865	2.995	3.165	3.275	3.385	3.495	3.635	3.775		3.2352	.4553
	N.A.		2.652	2.853	2.996	3.119	3.235	3.351	3.474	3.618	3.818			
6	R.S.		2.055	2.265	2.425	2.575	2.705	2.825	2.995	3.115	3.325		2.7029	.4814
	N.A.		2.087	2.299	2.450	2.580	2.703	2.826	2.956	3.107	3.319			
7	R.S.	1.000	2.245	2.445	2.605	2.745	2.855	2.995	3.085	3.245	3.425	4.000	2.8534	.4497
	N.A.		2.278	2.476	2.617	2.739	2.853	2.968	3.089	3.231	3.429			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 2 (Continued)

Item	Type of Mean	Decile										Mean	S.D.
		0	1	2	3	4	5	6	7	8	9		
8	R.S.	1.000	2.185	2.395	2.525	2.665	2.755	2.865	2.995	3.115	3.265	4.000	2.7521	.4241
	N.A.		2.209	2.396	2.529	2.644	2.752	2.860	2.975	3.108	3.295			
9	R.S.		2.075	2.295	2.445	2.575	2.705	2.825	2.965	3.105	3.305		2.7096	.4694
	N.A.		2.109	2.315	2.463	2.590	2.710	2.829	2.956	3.104	3.310			
10	R.S.		2.515	2.745	2.875	2.995	3.075	3.165	3.255	3.365	3.485		3.0508	.3766
	N.A.		2.569	2.734	2.853	2.955	3.051	3.147	3.249	3.367	3.533			
11	R.S.		2.555	2.765	2.915	3.045	3.135	3.245	3.355	3.465	3.625		3.1254	.4098
	N.A.		2.601	2.781	2.910	3.021	3.125	3.230	3.341	3.470	3.650			
12	R.S.		2.395	2.585	2.705	2.825	2.915	2.995	3.145	3.285	3.485		2.9355	.4194
	N.A.		2.399	2.583	2.715	2.829	2.935	3.042	3.156	3.288	3.472			
13	R.S.		2.595	2.755	2.885	2.995	3.045	3.125	3.215	3.325	3.465		3.0496	.3432
	N.A.		2.610	2.761	2.869	2.962	3.050	3.137	3.230	3.338	3.489			
14	R.S.	1.000	2.145	2.365	2.525	2.665	2.785	2.905	2.995	3.175	3.375	4.000	2.7809	.4654
	N.A.		2.185	2.390	2.537	2.662	2.781	2.900	3.025	3.172	3.377			

Table 2 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
15	R.S.	1.000	2.375	2.565	2.705	2.815	2.925	2.995	3.115	3.225	3.375	4.000	2.9039	.3834
	N.A.		2.413	2.582	2.703	2.806	2.904	3.002	3.105	3.226	3.395			
16	R.S.		2.155	2.385	2.535	2.665	2.765	2.865	2.995	3.115	3.295		2.7571	.4307
	N.A.		2.206	2.395	2.531	2.647	2.757	2.867	2.983	3.119	3.308			
17	R.S.		2.325	2.555	2.705	2.825	2.955	3.075	3.225	3.385	3.565		2.9643	.4634
	N.A.		2.371	2.575	2.721	2.846	2.964	3.082	3.208	3.354	3.557			
18	R.S.		3.065	3.235	3.325	3.425	3.495	3.595	3.675	3.765	3.855		3.4895	.3074
	N.A.		3.096	3.231	3.328	3.411	3.489	3.568	3.651	3.748	3.883			
19	R.S.		2.575	2.745	2.865	2.965	3.045	3.125	3.195	3.315	3.465		3.0383	.3472
	N.A.		2.594	2.747	2.856	2.950	3.038	3.127	3.221	3.330	3.483			
20	R.S.		2.745	2.885	2.995	3.055	3.135	3.205	3.285	3.375	3.495		3.1371	.3031
	N.A.		2.749	2.882	2.978	3.060	3.137	3.214	3.296	3.392	3.525			
21	R.S.	1.000	2.105	2.355	2.515	2.635	2.745	2.855	2.965	3.055	3.215	4.000	2.7119	.4442
	N.A.		2.143	2.339	2.479	2.599	2.712	2.825	2.945	3.085	3.280			

Table 2 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
22	R.S.	1.000	2.105	2.305	2.445	2.575	2.685	2.805	2.935	3.075	3.285	4.000	2.7041	.4426
	N.A.		2.138	2.332	2.472	2.591	2.704	2.817	2.936	3.076	3.271			
23	R.S.		2.635	2.795	2.915	2.995	3.095	3.175	3.265	3.375	3.495		3.0895	.3470
	N.A.		2.645	2.798	2.907	3.001	3.089	3.178	3.272	3.381	3.534			
24	R.S.		2.415	2.645	2.815	2.945	3.065	3.175	3.305	3.435	3.615		3.0503	.4497
	N.A.		2.475	2.673	2.814	2.936	3.050	3.165	3.286	3.428	3.626			
25	R.S.		2.315	2.515	2.675	2.795	2.905	2.995	3.125	3.265	3.455		2.9089	.4385
	N.A.		2.348	2.541	2.679	2.797	2.909	3.021	3.139	3.277	3.470			
26	R.S.		1.995	2.185	2.325	2.445	2.565	2.685	2.815	2.945	3.095		2.5781	.4231
	N.A.		2.037	2.223	2.356	2.470	2.578	2.686	2.800	2.934	3.120			
27	R.S.		2.135	2.315	2.475	2.595	2.705	2.815	2.935	3.075	3.265		2.7108	.4369
	N.A.		2.152	2.344	2.481	2.599	2.711	2.822	2.940	3.078	3.270			
28	R.S.	1.000	2.705	2.875	2.995	3.045	3.125	3.195	3.265	3.355	3.475	4.000	3.1131	.3088
	N.A.		2.718	2.854	2.951	3.034	3.113	3.192	3.275	3.372	3.508			

Table 2 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
29	R.S.	1.000	2.455	2.665	2.795	2.935	3.045	3.165	3.285	3.415	3.575	4.000	3.0361	.4362
	N.A.		2.478	2.670	2.807	2.925	3.036	3.147	3.265	3.403	3.594			
30	R.S.		2.255	2.455	2.585	2.685	2.795	2.885	2.995	3.085	3.215		2.7766	.3707
	N.A.		2.302	2.465	2.582	2.682	2.777	2.871	2.971	3.088	3.251			
31	R.S.		2.725	2.945	3.065	3.175	3.265	3.355	3.455	3.555	3.685		3.2453	.3792
	N.A.		2.760	2.927	3.046	3.149	3.245	3.342	3.444	3.564	3.731			
32	R.S.		2.555	2.725	2.825	2.905	2.995	3.045	3.115	3.215	3.345		2.9696	.3154
	N.A.		2.566	2.705	2.804	2.889	2.970	3.050	3.135	3.235	3.373			
33	R.S.		2.535	2.745	2.875	2.995	3.045	3.125	3.215	3.325	3.455		3.0319	.3616
	N.A.		2.569	2.728	2.842	2.940	3.032	3.124	3.222	3.336	3.495			
34	R.S.		2.495	2.685	2.825	2.945	3.045	3.135	3.235	3.345	3.495		3.0278	.3902
	N.A.		2.528	2.700	2.823	2.928	3.028	3.127	3.233	3.356	3.527			
35	R.S.	1.000	2.225	2.435	2.595	2.715	2.825	2.935	3.055	3.215	3.395	4.000	2.8334	.4441
	N.A.		2.265	2.460	2.600	2.720	2.833	2.947	3.067	3.206	3.402			

Table 2 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
36	R.S.	1.000	2.305	2.555	2.725	2.855	2.995	3.085	3.195	3.325	3.495	4.000	2.9486	.4580
	N.A.		2.362	2.564	2.708	2.832	2.949	3.065	3.189	3.333	3.535			
37	R.S.		2.165	2.385	2.525	2.645	2.755	2.865	2.995	3.105	3.265		2.7445	.4237
	N.A.		2.202	2.389	2.522	2.636	2.744	2.853	2.967	3.100	3.287			
38	R.S.		2.705	2.835	2.925	2.995	3.055	3.115	3.175	3.255	3.375		3.0513	.2774
	N.A.		2.696	2.818	2.906	2.981	3.051	3.122	3.197	3.284	3.406			
39	R.S.		1.795	1.995	2.125	2.245	2.375	2.495	2.665	2.825	2.995		2.4037	.4578
	N.A.		1.818	2.019	2.163	2.287	2.404	2.520	2.644	2.788	2.990			
40	R.S.		2.165	2.345	2.495	2.615	2.725	2.825	2.945	3.075	3.285		2.7298	.4291
	N.A.		2.181	2.369	2.505	2.620	2.730	2.839	2.955	3.090	3.279			
41	R.S.		2.185	2.415	2.595	2.725	2.825	2.925	2.995	3.115	3.245		2.7824	.4210
	N.A.		2.244	2.429	2.561	2.675	2.782	2.890	3.003	3.136	3.321			
42	R.S.	1.000	2.495	2.695	2.805	2.895	2.995	3.035	3.115	3.215	3.345	4.000	2.9560	.3375
	N.A.		2.524	2.672	2.779	2.870	2.956	3.042	3.133	3.239	3.388			

Table 2 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
43	R.S.	1.000	2.325	2.525	2.665	2.745	2.845	2.925	2.995	3.085	3.195	4.000	2.8092	.3452
	N.A.		2.367	2.519	2.628	2.721	2.809	2.897	2.990	3.099	3.251			
44	R.S.		2.765	2.895	2.995	3.035	3.105	3.165	3.225	3.315	3.435		3.1095	.2685
	N.A.		2.766	2.884	2.969	3.041	3.109	3.178	3.250	3.335	3.453			
45	R.S.		1.725	1.885	1.995	2.095	2.195	2.295	2.425	2.615	2.825		2.2549	.4268
	N.A.		1.709	1.896	2.031	2.146	2.255	2.364	2.479	2.613	2.801			
46	R.S.		2.375	2.615	2.785	2.905	2.995	3.125	3.245	3.365	3.495		2.9892	.4422
	N.A.		2.423	2.618	2.757	2.876	2.989	3.102	3.221	3.361	3.555			
47	R.S.		2.805	2.945	3.045	3.125	3.205	3.285	3.365	3.475	3.615		3.2093	.3277
	N.A.		2.790	2.934	3.037	3.126	3.209	3.293	3.381	3.485	3.629			
48	R.S.		2.215	2.455	2.595	2.705	2.815	2.915	2.995	3.145	3.305		2.7976	.4156
	N.A.		2.266	2.448	2.579	2.692	2.798	2.904	3.016	3.147	3.330			
49	R.S.		2.385	2.565	2.705	2.815	2.915	2.995	3.105	3.225	3.405		2.9133	.3956
	N.A.		2.407	2.581	2.706	2.812	2.913	3.014	3.121	3.246	3.420			
50	R.S.	1.000	2.155	2.395	2.555	2.695	2.815	2.935	3.065	3.215	3.405	4.000	2.8067	.4787
	N.A.		2.194	2.405	2.555	2.685	2.807	2.929	3.058	3.209	3.419			

Table 3

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for

CEQ Items on 5346 Sections Taught Throughout the United States[1]

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
1	R.S.	1.000	2.265	2.455	2.585	2.695	2.795	2.895	2.995	3.095	3.245	4.000	2.7849	.3785
	N.A.		2.300	2.467	2.586	2.688	2.785	2.881	2.984	3.103	3.269			
2	R.S.		2.805	2.995	3.155	3.255	3.355	3.445	3.545	3.645	3.765		3.3261	.3643
	N.A.		2.860	3.020	3.135	3.233	3.326	3.419	3.517	3.632	3.792			
3	R.S.		2.575	2.785	2.905	2.995	3.095	3.175	3.275	3.395	3.545		3.0870	.3621
	N.A.		2.624	2.783	2.897	2.995	3.087	3.179	3.277	3.391	3.550			
4	R.S.		1.995	2.215	2.395	2.535	2.645	2.755	2.875	2.995	3.205		2.6315	.4819
	N.A.		2.015	2.227	2.379	2.509	2.631	2.754	2.884	3.036	3.248			
5	R.S.		2.635	2.875	3.025	3.155	3.265	3.375	3.495	3.615	3.745		3.2335	.4287
	N.A.		2.685	2.873	3.008	3.124	3.233	3.343	3.459	3.594	3.782			
6	R.S.		2.095	2.305	2.465	2.605	2.725	2.845	2.995	3.115	3.305		2.7239	.4586
	N.A.		2.137	2.339	2.483	2.607	2.724	2.841	2.965	3.109	3.311			
7	R.S.	1.000	2.285	2.495	2.635	2.775	2.885	2.995	3.105	3.245	3.415	4.000	2.8764	.4263
	N.A.		2.331	2.518	2.653	2.768	2.876	2.985	3.100	3.234	3.422			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 3 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
8	R.S.	1.000	2.225	2.415	2.565	2.685	2.795	2.895	2.995	3.125	3.265	4.000	2.7771	.4075
	N.A.		2.255	2.435	2.563	2.673	2.777	2.881	2.991	3.119	3.299			
9	R.S.		2.115	2.325	2.495	2.625	2.745	2.855	2.995	3.115	3.285		2.7355	.4458
	N.A.		2.165	2.361	2.501	2.622	2.735	2.849	2.970	3.110	3.306			
10	R.S.		2.545	2.755	2.875	2.995	3.075	3.165	3.255	3.355	3.475		3.0533	.3646
	N.A.		2.587	2.747	2.862	2.960	3.053	3.146	3.245	3.360	3.520			
11	R.S.		2.615	2.825	2.965	3.075	3.175	3.275	3.375	3.495	3.635		3.1590	.3841
	N.A.		2.667	2.836	2.957	3.061	3.159	3.257	3.361	3.482	3.651			
12	R.S.		2.445	2.635	2.755	2.875	2.995	3.065	3.175	3.295	3.465		2.9698	.3906
	N.A.		2.470	2.642	2.765	2.870	2.970	3.069	3.175	3.298	3.470			
13	R.S.		2.665	2.815	2.925	2.995	3.085	3.155	3.245	3.345	3.475		3.0869	.3162
	N.A.		2.682	2.821	2.921	3.006	3.087	3.168	3.253	3.353	3.492			
14	R.S.	1.000	2.195	2.405	2.565	2.695	2.815	2.925	3.055	3.185	3.355	4.000	2.8073	.4427
	N.A.		2.241	2.435	2.575	2.694	2.807	2.920	3.040	3.179	3.374			

Table 3 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
15	R.S.	1.000	2.385	2.565	2.695	2.815	2.915	2.995	3.105	3.205	3.345	4.000	2.8980	.3711
	N.A.		2.423	2.586	2.703	2.803	2.898	2.993	3.093	3.210	3.373			
16	R.S.		2.265	2.475	2.615	2.715	2.815	2.905	2.995	3.125	3.295		2.8065	.3945
	N.A.		2.302	2.475	2.599	2.706	2.806	2.907	3.014	3.138	3.311			
17	R.S.		2.375	2.595	2.725	2.855	2.995	3.075	3.205	3.345	3.545		2.9711	.4359
	N.A.		2.413	2.605	2.742	2.860	2.971	3.082	3.200	3.337	3.529			
18	R.S.		3.085	3.265	3.375	3.465	3.545	3.625	3.695	3.775	3.855		3.5121	.2985
	N.A.		3.130	3.261	3.355	3.436	3.512	3.588	3.669	3.763	3.894			
19	R.S.		2.635	2.805	2.915	2.995	3.075	3.145	3.235	3.325	3.475		3.0757	.3204
	N.A.		2.666	2.807	2.907	2.994	3.076	3.157	3.244	3.345	3.486			
20	R.S.		2.785	2.925	2.995	3.085	3.155	3.225	3.295	3.385	3.495		3.1591	.2830
	N.A.		2.797	2.921	3.011	3.087	3.159	3.231	3.308	3.397	3.521			
21	R.S.	1.000	1.995	2.245	2.435	2.615	2.745	2.885	2.995	3.145	3.305	4.000	2.7144	.4923
	N.A.		2.084	2.301	2.456	2.589	2.714	2.840	2.973	3.128	3.345			

Table 3 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
22	R.S.	1.000	2.375	2.605	2.755	2.885	2.995	3.095	3.205	3.325	3.465	4.000	2.9706	.4172
	N.A.		2.437	2.620	2.752	2.864	2.971	3.077	3.190	3.321	3.505			
23	R.S.		2.555	2.765	2.915	2.995	3.115	3.205	3.305	3.425	3.555		3.0973	.3855
	N.A.		2.604	2.773	2.895	2.999	3.097	3.196	3.300	3.421	3.591			
24	R.S.		2.405	2.595	2.745	2.875	2.995	3.085	3.195	3.325	3.495		2.9681	.4218
	N.A.		2.428	2.614	2.747	2.861	2.968	3.076	3.190	3.322	3.508			
25	R.S.		2.395	2.595	2.745	2.845	2.955	3.045	3.145	3.265	3.415		2.9359	.3948
	N.A.		2.431	2.604	2.729	2.835	2.936	3.037	3.143	3.268	3.441			
26	R.S.		2.265	2.495	2.675	2.815	2.925	3.035	3.155	3.285	3.465		2.9073	.4521
	N.A.		2.329	2.528	2.670	2.792	2.907	3.023	3.145	3.287	3.486			
27	R.S.		2.175	2.435	2.605	2.715	2.825	2.925	3.035	3.155	3.315		2.7990	.4350
	N.A.		2.242	2.434	2.571	2.688	2.799	2.910	3.027	3.164	3.356			
28	R.S.	1.000	2.205	2.445	2.605	2.725	2.835	2.945	3.045	3.175	3.325	4.000	2.8160	.4279
	N.A.		2.268	2.457	2.591	2.707	2.816	2.925	3.041	3.175	3.364			

Table 3 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
29	R.S.	1.000	2.465	2.675	2.825	2.945	3.045	3.155	3.255	3.385	3.545	4.000	3.0345	.4186
	N.A.		2.499	2.683	2.815	2.928	3.034	3.141	3.254	3.386	3.570			
30	R.S.		2.385	2.605	2.735	2.845	2.955	3.045	3.165	3.325	3.575		2.9675	.4457
	N.A.		2.397	2.593	2.734	2.854	2.967	3.081	3.201	3.342	3.538			
31	R.S.		2.755	2.965	3.095	3.195	3.275	3.365	3.455	3.555	3.675		3.2539	.3593
	N.A.		2.794	2.952	3.065	3.162	3.254	3.346	3.443	3.556	3.714			
32	R.S.		2.565	2.735	2.825	2.925	2.995	3.065	3.135	3.225	3.345		2.9801	.3061
	N.A.		2.588	2.723	2.819	2.902	2.980	3.058	3.141	3.237	3.372			
33	R.S.		2.595	2.795	2.905	2.995	3.075	3.165	3.245	3.325	3.465		3.0627	.3387
	N.A.		2.629	2.778	2.885	2.976	3.063	3.149	3.241	3.347	3.496			
34	R.S.		2.565	2.745	2.885	2.995	3.075	3.175	3.265	3.375	3.505		3.0689	.3652
	N.A.		2.601	2.762	2.877	2.976	3.069	3.162	3.261	3.376	3.536			
35	R.S.	1.000	2.285	2.495	2.645	2.765	2.875	2.995	3.095	3.235	3.395	4.000	2.8749	.4185
	N.A.		2.339	2.523	2.655	2.768	2.875	2.982	3.095	3.226	3.411			

Table 3 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
36	R.S.	1.000	2.355	2.595	2.745	2.885	2.995	3.105	3.225	3.325	3.495	4.000	2.9670	.4369
	N.A.		2.408	2.600	2.738	2.856	2.967	3.078	3.196	3.334	3.526			
37	R.S.		2.215	2.415	2.555	2.665	2.785	2.885	2.995	3.115	3.265		2.7686	.4073
	N.A.		2.247	2.426	2.555	2.665	2.769	2.872	2.982	3.111	3.290			
38	R.S.		2.715	2.855	2.945	2.995	3.085	3.145	3.205	3.285	3.395		3.0748	.2718
	N.A.		2.727	2.846	2.932	3.005	3.075	3.144	3.217	3.303	3.423			
39	R.S.		1.795	1.995	2.135	2.255	2.385	2.515	2.665	2.795	2.995		2.4027	.4448
	N.A.		1.833	2.029	2.169	2.289	2.403	2.516	2.636	2.776	2.972			
40	R.S.		2.245	2.435	2.565	2.675	2.775	2.895	2.995	3.125	3.305		2.7892	.4067
	N.A.		2.269	2.448	2.576	2.685	2.789	2.893	3.003	3.131	3.310			
41	R.S.		2.215	2.455	2.615	2.725	2.825	2.925	2.995	3.105	3.245		2.7898	.4022
	N.A.		2.275	2.452	2.579	2.687	2.790	2.892	3.001	3.128	3.305			
42	R.S.	1.000	2.545	2.725	2.835	2.925	2.995	3.065	3.135	3.225	3.345	4.000	2.9801	.3172
	N.A.		2.574	2.714	2.814	2.899	2.980	3.061	3.147	3.247	3.386			

Table 3 (Continued)

Item	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
43	R.S.	1.000	2.375	2.555	2.675	2.775	2.855	2.925	2.995	3.075	3.175	4.000	2.8213	.3192
	N.A.		2.413	2.553	2.654	2.740	2.821	2.903	2.989	3.089	3.230			
44	R.S.		2.815	2.955	3.005	3.095	3.165	3.225	3.285	3.375	3.495		3.1646	.2597
	N.A.		2.832	2.946	3.028	3.098	3.165	3.231	3.301	3.383	3.497			
45	R.S.		1.785	1.925	2.035	2.145	2.245	2.355	2.495	2.645	2.845		2.2971	.4149
	N.A.		1.766	1.949	2.079	2.191	2.297	2.403	2.515	2.646	2.828			
46	R.S.		2.445	2.665	2.815	2.935	3.035	3.145	3.255	3.375	3.495		3.0183	.4135
	N.A.		2.489	2.671	2.801	2.913	3.018	3.124	3.235	3.366	3.548			
47	R.S.		2.825	2.995	3.075	3.165	3.235	3.305	3.385	3.495	3.605		3.2289	.3089
	N.A.		2.834	2.969	3.067	3.150	3.229	3.308	3.391	3.488	3.624			
48	R.S.		2.265	2.475	2.615	2.735	2.835	2.945	3.035	3.155	3.295		2.8202	.3980
	N.A.		2.311	2.486	2.611	2.719	2.820	2.922	3.029	3.155	3.330			
49	R.S.		2.445	2.625	2.755	2.875	2.995	3.055	3.145	3.255	3.425		2.9579	.3746
	N.A.		2.478	2.643	2.761	2.862	2.958	3.053	3.155	3.273	3.437			
50	R.S.	1.000	2.205	2.435	2.605	2.745	2.865	2.995	3.095	3.225	3.405	4.000	2.8433	.4568
	N.A.		2.259	2.460	2.603	2.727	2.843	2.960	3.083	3.227	3.428			

APPENDIX D

Decile Norm Cut-off Scores
for CEQ Subscales Within Instructor Rank

Table 4

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Teaching Assistants (G.T.A.s) Based on Data From 322 G.T.A.s at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.535	2.715	2.895	3.005	3.115	3.225	3.285	3.385	3.505	4.000	3.0749	.3702
	N.A.		2.601	2.764	2.881	2.980	3.075	3.169	3.269	3.386	3.549			
Method of Instruction	R.S.		2.295	2.495	2.655	2.785	2.885	2.995	3.055	3.165	3.295		2.8507	.3649
	N.A.		2.384	2.544	2.659	2.758	2.851	2.944	3.042	3.157	3.318			
Course Content	R.S.		2.525	2.625	2.705	2.805	2.885	2.965	3.035	3.105	3.205		2.8768	.2600
	N.A.		2.544	2.658	2.740	2.810	2.877	2.943	3.013	3.095	3.210			
Interest and Attention	R.S.		2.195	2.385	2.515	2.725	2.875	2.975	3.075	3.205	3.335		2.8107	.4377
	N.A.		2.250	2.443	2.581	2.699	2.811	2.922	3.040	3.178	3.371			
Instructor	R.S.		2.795	2.965	3.045	3.115	3.185	3.235	3.295	3.355	3.455		3.1595	.2657
	N.A.		2.819	2.936	3.020	3.092	3.159	3.227	3.299	3.383	3.500			
Specific Items	R.S.		2.555	2.645	2.745	2.815	2.875	2.925	2.985	3.035	3.135		2.8660	.2260
	N.A.		2.577	2.676	2.747	2.808	2.866	2.924	2.985	3.056	3.155			
Total	R.S.	1.000	2.495	2.655	2.765	2.885	2.965	3.035	3.095	3.175	3.305	4.000	2.9364	.2914
	N.A.		2.563	2.692	2.783	2.862	2.936	3.011	3.089	3.181	3.309			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 5

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for

Instructors Based on Data From 228 Instructors at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.585	2.725	2.895	2.985	3.065	3.135	3.245	3.395	3.525	4.000	3.0670	.3700
	N.A.		2.593	2.756	2.873	2.973	3.067	3.161	3.261	3.378	3.541			
Method of Instruction	R.S.		2.015	2.325	2.595	2.735	2.865	2.955	3.085	3.215	3.305		2.7873	.4829
	N.A.		2.169	2.382	2.534	2.664	2.787	2.910	3.041	3.193	3.405			
Course Content	R.S.		2.545	2.625	2.685	2.745	2.835	2.915	3.015	3.135	3.225		2.8733	.2752
	N.A.		2.521	2.642	2.729	2.803	2.873	2.943	3.018	3.104	3.226			
Interest and Attention	R.S.		2.105	2.295	2.455	2.635	2.765	2.925	3.035	3.155	3.315		2.7491	.4807
	N.A.		2.134	2.345	2.497	2.627	2.749	2.872	3.001	3.153	3.364			
Instructor	R.S.		2.515	2.765	2.965	3.075	3.165	3.245	3.325	3.405	3.505		3.1092	.3446
	N.A.		2.668	2.820	2.928	3.021	3.109	3.197	3.290	3.399	3.550			
Specific Items	R.S.		2.605	2.675	2.735	2.795	2.865	2.915	2.975	3.045	3.135		2.8705	.2109
	N.A.		2.601	2.693	2.760	2.817	2.870	2.924	2.981	3.048	3.140			
Total	R.S.	1.000	2.455	2.575	2.705	2.815	2.935	2.995	3.105	3.205	3.295	4.000	2.9075	.3286
	N.A.		2.487	2.631	2.735	2.824	2.907	2.991	3.080	3.184	3.328			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 6

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Assistant Professors (Asst. Profs.) Based on Data From 498 Asst. Profs. at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.605	2.795	2.905	3.005	3.105	3.215	3.305	3.405	3.575	4.000	3.1100	.3647
	N.A.		2.643	2.804	2.919	3.017	3.110	3.203	3.301	3.416	3.577			
Method of Instruction	R.S.		2.295	2.495	2.615	2.705	2.805	2.935	3.055	3.185	3.335		2.8310	.4033
	N.A.	.	2.315	2.492	2.619	2.728	2.831	2.934	3.043	3.170	3.347	.		
Course Content	R.S.		2.525	2.625	2.695	2.765	2.855	2.925	3.015	3.165	3.285		2.8889	.2969
	N.A.		2.509	2.640	2.733	2.813	2.889	2.965	3.045	3.138	3.269			
Interest and Attention	R.S.	.	2.295	2.455	2.565	2.685	2.785	2.905	3.035	3.225	3.375	.	2.8270	.4185
	N.A.		2.291	2.475	2.607	2.720	2.827	2.934	3.047	3.179	3.363			
Instructor	R.S.		2.775	2.925	3.015	3.095	3.195	3.265	3.375	3.455	3.565		3.1854	.3215
	N.A.	.	2.774	2.915	3.017	3.103	3.185	3.267	3.354	3.455	3.597	.		
Specific Items	R.S.		2.595	2.675	2.755	2.835	2.885	2.955	3.025	3.095	3.245		2.9122	.2519
	N.A.		2.590	2.701	2.780	2.848	2.912	2.976	3.044	3.124	3.235			
Total	R.S.	1.000	2.555	2.685	2.785	2.845	2.925	3.015	3.115	3.255	3.365	4.000	2.9578	.3156
	N.A.		2.554	2.693	2.792	2.877	2.958	3.038	3.123	3.223	3.362			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 7

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Associate Professors (Assoc. Profs.) Based on Data From 177 Assoc. Profs. at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.595	2.805	2.955	3.035	3.135	3.225	3.285	3.405	3.605	4.000	3.1223	.3793
	N.A.		2.637	2.804	2.923	3.026	3.122	3.219	3.321	3.441	3.608			
Method of Instruction	R.S.		2.255	2.435	2.615	2.735	2.805	2.885	2.985	3.095	3.365		2.8034	.4239
	N.A.		2.261	2.447	2.581	2.695	2.803	2.911	3.026	3.159	3.346			
Course Content	R.S.		2.595	2.685	2.715	2.775	2.815	2.915	2.975	3.065	3.235		2.8842	.2795
	N.A.		2.526	2.649	2.737	2.813	2.884	2.955	3.031	3.119	3.242			
Interest and Attention	R.S.		2.215	2.455	2.585	2.705	2.785	2.855	2.985	3.195	3.465		2.8189	.4425
	N.A.		2.252	2.447	2.587	2.706	2.819	2.932	3.051	3.191	3.385			
Instructor	R.S.		2.745	2.915	2.975	3.045	3.115	3.195	3.285	3.435	3.545		3.1401	.3006
	N.A.		2.755	2.888	2.982	3.063	3.140	3.217	3.298	3.393	3.525			
Specific Items	R.S.		2.605	2.675	2.755	2.785	2.835	2.895	2.975	3.045	3.255		2.8870	.2475
	N.A.		2.570	2.679	2.757	2.824	2.887	2.950	3.017	3.095	3.204			
Total	R.S.	1.000	2.555	2.675	2.765	2.845	2.905	2.975	3.085	3.185	3.405	4.000	2.9405	.3208
	N.A.		2.530	2.671	2.772	2.859	2.940	3.022	3.109	3.210	3.351			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 8

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Professors

Based on Data From 194 Profs. at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.605	2.735	2.845	2.955	3.075	3.155	3.255	3.395	3.595	4.000	3.0683	.3871
	N.A.		2.573	2.743	2.865	2.970	3.068	3.167	3.272	3.393	3.564			
Method of Instruction	R.S.		2.105	2.425	2.565	2.675	2.745	2.835	2.925	3.085	3.265		2.7403	.4193
	N.A.		2.204	2.388	2.520	2.633	2.740	2.847	2.960	3.093	3.277			
Course Content	R.S.		2.545	2.645	2.695	2.735	2.805	2.885	2.985	3.095	3.195		2.8652	.2695
	N.A.		2.520	2.639	2.724	2.796	2.865	2.934	3.007	3.092	3.210			
Interest and Attention	R.S.		2.265	2.405	2.515	2.605	2.705	2.785	2.915	3.105	3.395		2.7443	.4388
	N.A.		2.183	2.376	2.514	2.632	2.744	2.856	2.975	3.113	3.306			
Instructor	R.S.		2.745	2.925	3.025	3.115	3.155	3.255	3.325	3.405	3.525		3.1622	.3158
	N.A.		2.758	2.897	2.996	3.082	3.162	3.243	3.328	3.427	3.566			
Specific Items	R.S.		2.615	2.695	2.735	2.775	2.845	2.895	2.965	3.075	3.175		2.8812	.2319
	N.A.		2.584	2.686	2.759	2.822	2.881	2.940	3.003	3.076	3.178			
Total	R.S.	1.000	2.505	2.675	2.745	2.815	2.885	2.945	3.035	3.175	3.285	4.000	2.9088	.3117
	N.A.		2.510	2.647	2.745	2.829	2.909	2.988	3.072	3.171	3.308			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 9

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Teaching Assistants (G.T.A.s) Based on Data From 396 G.T.A.s From Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.535	2.695	2.875	2.975	3.085	3.175	3.265	3.355	3.505	4.000	3.0533	.3638
	N.A.		2.588	2.748	2.862	2.961	3.053	3.146	3.244	3.359	3.519			
Method of Instruction	R.S.		2.285	2.495	2.655	2.765	2.855	2.945	3.045	3.155	3.285		2.8378	.3665
	N.A.		2.369	2.530	2.645	2.744	2.838	2.931	3.030	3.146	3.307			
Course Content	R.S.		2.485	2.595	2.685	2.775	2.865	2.925	3.005	3.085	3.195		2.8537	.2619
	N.A.		2.518	2.634	2.716	2.787	2.854	2.920	2.991	3.074	3.189			
Interest and Attention	R.S.		2.205	2.385	2.505	2.665	2.825	2.935	3.045	3.175	3.315		2.7864	.4237
	N.A.		2.244	2.430	2.564	2.678	2.786	2.894	3.009	3.142	3.329			
Instructor	R.S.		2.775	2.955	3.035	3.105	3.175	3.225	3.295	3.365	3.465		3.1521	.2716
	N.A.		2.804	2.924	3.010	3.083	3.152	3.221	3.295	3.380	3.500			
Specific Items	R.S.		2.555	2.665	2.755	2.815	2.875	2.925	2.985	3.055	3.135		2.8689	.2250
	N.A.		2.581	2.680	2.751	2.812	2.869	2.926	2.987	3.058	3.157			
Total	R.S.	1.000	2.485	2.645	2.755	2.855	2.945	3.015	3.075	3.155	3.285	4.000	2.9227	.2884
	N.A.		2.554	2.680	2.771	2.849	2.923	2.996	3.074	3.165	3.292			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 10

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Instructors

Based on Data From 578 Instructors From Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.635	2.785	2.915	2.995	3.065	3.135	3.225	3.335	3.485	4.000	3.0659	.3331
	N.A.		2.640	2.786	2.891	2.981	3.066	3.151	3.241	3.346	3.492			
Method of Instruction	R.S.		2.195	2.445	2.595	2.715	2.835	2.915	3.005	3.135	3.265		2.7859	.4167
	N.A.		2.253	2.436	2.567	2.680	2.786	2.892	3.005	3.136	3.319			
Course Content	R.S.		2.555	2.635	2.685	2.755	2.825	2.895	2.975	3.055	3.195		2.8557	.2485
	N.A.		2.538	2.647	2.725	2.792	2.856	2.919	2.986	3.064	3.174			
Interest and Attention	R.S.		2.175	2.375	2.535	2.665	2.785	2.875	2.985	3.095	3.255		2.7551	.4174
	N.A.		2.221	2.404	2.536	2.649	2.755	2.862	2.974	3.106	3.289			
Instructor	R.S.		2.675	2.885	3.005	3.085	3.165	3.235	3.305	3.375	3.465		3.1326	.2947
	N.A.		2.755	2.885	2.978	3.057	3.133	3.208	3.287	3.380	3.510			
Specific Items	R.S.		2.605	2.705	2.775	2.825	2.875	2.935	2.985	3.055	3.135		2.8840	.2045
	N.A.		2.622	2.712	2.777	2.832	2.884	2.936	2.991	3.056	3.146			
Total	R.S.	1.000	2.515	2.665	2.755	2.825	2.915	2.975	3.055	3.155	3.265	4.000	2.9120	.2884
	N.A.		2.543	2.670	2.761	2.838	2.912	2.986	3.063	3.154	3.281			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 11

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Assistant Professors (Asst. Profs.) Based on Data From 717 Asst. Profs. From Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.645	2.805	2.905	3.015	3.115	3.225	3.315	3.425	3.575	4.000	3.1198	.3544
	N.A.		2.666	2.822	2.934	3.029	3.120	3.210	3.306	3.417	3.573			
Method of Instruction	R.S.		2.295	2.485	2.615	2.705	2.815	2.935	3.055	3.185	3.335		2.8322	.3996
	N.A.		2.321	2.497	2.622	2.730	2.832	2.934	3.042	3.168	3.344			
Course Content	R.S.		2.535	2.635	2.705	2.785	2.865	2.935	3.025	3.145	3.255		2.8895	.2875
	N.A.		2.521	2.648	2.739	2.816	2.889	2.963	3.040	3.131	3.257			
Interest and Attention	R.S.		2.295	2.455	2.565	2.695	2.795	2.915	3.045	3.215	3.375		2.8283	.4130
	N.A.		2.300	2.481	2.611	2.723	2.828	2.934	3.045	3.175	3.357			
Instructor	R.S.		2.785	2.945	3.025	3.105	3.185	3.255	3.355	3.435	3.535		3.1819	.3011
	N.A.		2.796	2.929	3.024	3.105	3.182	3.259	3.340	3.435	3.567			
Specific Items	R.S.		2.605	2.685	2.765	2.835	2.895	2.965	3.025	3.115	3.225		2.9160	.2446
	N.A.		2.603	2.711	2.788	2.854	2.916	2.978	3.044	3.121	3.229			
Total	R.S.	1.000	2.575	2.685	2.785	2.855	2.935	3.025	3.115	3.245	3.355	4.000	2.9599	.3063
	N.A.		2.568	2.703	2.799	2.882	2.960	3.038	3.121	3.217	3.352			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 12

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Associate Professors (Assoc. Profs.) Based on Data From 362 Assoc. Profs. From Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.635	2.865	2.995	3.085	3.165	3.255	3.345	3.445	3.595	4.000	3.1551	.3675
	N.A.		2.685	2.846	2.962	3.061	3.155	3.249	3.348	3.464	3.625			
Method of Instruction	R.S.		2.275	2.445	2.615	2.745	2.835	2.945	3.045	3.175	3.305		2.8299	.4258
	N.A.		2.285	2.472	2.606	2.721	2.830	2.938	3.053	3.188	3.375			
Course Content	R.S.		2.595	2.685	2.755	2.795	2.875	2.945	3.025	3.105	3.235		2.9114	.2738
	N.A.		2.561	2.681	2.768	2.842	2.911	2.981	3.055	3.141	3.262			
Interest and Attention	R.S.		2.325	2.505	2.685	2.785	2.875	2.955	3.085	3.215	3.405		2.8708	.4212
	N.A.		2.332	2.517	2.650	2.763	2.871	2.978	3.092	3.225	3.410			
Instructor	R.S.		2.785	2.925	3.015	3.085	3.165	3.265	3.355	3.445	3.555		3.1789	.3080
	N.A.		2.785	2.920	3.017	3.100	3.179	3.257	3.341	3.438	3.573			
Specific Items	R.S.		2.625	2.705	2.765	2.825	2.885	2.975	3.025	3.105	3.235		2.9169	.2497
	N.A.		2.597	2.707	2.786	2.853	2.917	2.981	3.048	3.127	3.237			
Total	R.S.	1.000	2.575	2.705	2.805	2.885	2.945	3.065	3.155	3.215	3.385	4.000	2.9748	.3155
	N.A.		2.571	2.710	2.809	2.894	2.975	3.055	3.140	3.240	3.379			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 13

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Professors

Based on Data From 508 Profs. From Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.695	2.855	2.985	3.105	3.215	3.285	3.385	3.465	3.595	4.000	3.1722	.3592
	N.A.		2.712	2.870	2.984	3.081	3.172	3.264	3.361	3.474	3.632			
Method of Instruction	R.S.		2.275	2.475	2.595	2.735	2.845	2.935	3.065	3.185	3.315		2.8291	.4129
	N.A.		2.301	2.482	2.612	2.724	2.829	2.934	3.046	3.176	3.358			
Course Content	R.S.		2.625	2.705	2.795	2.855	2.935	2.995	3.075	3.145	3.255		2.9431	.2542
	N.A.		2.618	2.730	2.810	2.878	2.943	3.008	3.077	3.157	3.268			
Interest and Attention	R.S.		2.305	2.485	2.625	2.745	2.855	2.965	3.115	3.215	3.385		2.8571	.4257
	N.A.		2.312	2.500	2.634	2.749	2.857	2.966	3.081	3.215	3.402			
Instructor	R.S.		2.795	2.955	3.065	3.135	3.205	3.295	3.365	3.435	3.535		3.1930	.2960
	N.A.		2.814	2.944	3.038	3.118	3.193	3.268	3.348	3.442	3.572			
Specific Items	R.S.		2.645	2.735	2.795	2.865	2.925	2.995	3.055	3.115	3.215		2.9412	.2272
	N.A.		2.650	2.750	2.822	2.883	2.941	2.999	3.060	3.132	3.232			
Total	R.S.	1.000	2.605	2.725	2.815	2.895	2.985	3.075	3.165	3.245	3.355	4.000	2.9874	.3008
	N.A.		2.602	2.735	2.829	2.911	2.987	3.064	3.145	3.240	3.372			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

APPENDIX E

Decile Norm Cut-off Scores
for CEQ Subscales Within Course Levels

Table 14

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Freshmen Courses

Based on Data From 1185 Freshman Courses Taught at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.485	2.645	2.785	2.905	3.005	3.095	3.185	3.285	3.425	4.000	2.9863	.3720
	N.A.		2.510	2.674	2.791	2.891	2.986	3.081	3.182	3.299	3.462			
Method of Instruction	R.S.		2.185	2.375	2.515	2.645	2.745	2.845	2.955	3.085	3.255		2.7372	.4118
	N.A.		2.210	2.391	2.521	2.632	2.737	2.842	2.953	3.083	3.264			
Course Content	R.S.		2.415	2.545	2.625	2.685	2.745	2.835	2.925	3.035	3.165		2.7875	.2880
	N.A.		2.419	2.546	2.636	2.714	2.787	2.861	2.939	3.029	3.156			
Interest and Attention	R.S.		2.095	2.275	2.435	2.545	2.675	2.795	2.925	3.075	3.275		2.6897	.4435
	N.A.		2.122	2.317	2.457	2.577	2.690	2.803	2.923	3.062	3.257			
Instructor	R.S.		2.625	2.815	2.935	3.025	3.105	3.185	3.255	3.355	3.455		3.0873	.3182
	N.A.		2.680	2.820	2.920	3.006	3.087	3.168	3.254	3.355	3.495			
Specific Items	R.S.		2.465	2.595	2.675	2.735	2.795	2.865	2.925	2.995	3.095		2.8057	.2397
	N.A.		2.499	2.604	2.680	2.745	2.806	2.867	2.932	3.007	3.113			
Total	R.S.	1.000	2.415	2.555	2.665	2.755	2.845	2.925	3.005	3.105	3.255	4.000	2.8471	.3146
	N.A.		2.444	2.583	2.682	2.767	2.847	2.927	3.012	3.111	3.250			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 15

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Sophomore Courses Based on Data From 442 Sophomore Courses Taught at the University of Illinois[1]

Subscore	Type of Mean	Decile											Mean	S. D.
		0	1	2	3	4	5	6	7	8	9			
General Course Attitude	R.S.	1.000	2.565	2.765	2.895	3.005	3.115	3.205	3.315	3.425	3.585	4.000	3.1015	.3814
	N.A.		2.613	2.781	2.901	3.004	3.101	3.199	3.302	3.422	3.590			
Method of Instruction	R.S.		2.335	2.505	2.665	2.765	2.835	2.945	3.055	3.175	3.325		2.8530	.3915
	N.A.		2.352	2.524	2.647	2.753	2.853	2.953	3.059	3.182	3.354			
Course Content	R.S.		2.595	2.685	2.755	2.815	2.895	2.985	3.055	3.155	3.285		2.9303	.2713
	N.A.		2.583	2.702	2.788	2.861	2.930	2.999	3.073	3.158	3.278			
Interest and Attention	R.S.		2.265	2.435	2.585	2.695	2.805	2.905	3.015	3.165	3.325		2.8131	.4124
	N.A.		2.285	2.467	2.597	2.708	2.813	2.918	3.030	3.160	3.341			
Instructor	R.S.		2.855	2.995	3.065	3.155	3.225	3.305	3.375	3.465	3.589		3.2263	.2835
	N.A.		2.863	2.988	3.077	3.154	3.226	3.299	3.375	3.464	3.589			
Specific Items	R.S.		2.635	2.715	2.785	2.855	2.935	2.985	3.045	3.105	3.215		2.9343	.2280
	N.A.		2.642	2.743	2.815	2.876	2.934	2.992	3.054	3.126	3.226			
Total	R.S.	1.000	2.585	2.705	2.795	2.885	2.955	3.045	3.135	3.235	3.335	4.000	2.9748	.3015
	N.A.		2.589	2.722	2.817	2.898	2.975	3.052	3.133	3.228	3.361			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 16

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Junior and Senior Courses

Based on Data From 238 Junior and Senior Courses Taught at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.605	2.885	3.065	3.195	3.285	3.375	3.465	3.545	3.665	4.000	3.2289	.3823
	N.A.		2.740	2.908	3.028	3.131	3.229	3.326	3.430	3.550	3.718			
Method of Instruction	R.S.		2.075	2.345	2.565	2.725	2.895	3.005	3.165	3.255	3.355		2.8193	.4975
	N.A.		2.182	2.401	2.558	2.692	2.819	2.946	3.080	3.237	3.456			
Course Content	R.S.		2.515	2.685	2.815	2.895	2.965	3.035	3.125	3.185	3.265		2.9512	.2882
	N.A.		2.582	2.709	2.800	2.878	2.951	3.025	3.103	3.193	3.320			
Interest and Attention	R.S.		2.215	2.505	2.705	2.825	2.975	3.095	3.235	3.315	3.465		2.9261	.4608
	N.A.		2.336	2.539	2.684	2.809	2.926	3.044	3.168	3.313	3.516			
Instructor	R.S.		2.765	2.945	3.065	3.215	3.305	3.355	3.435	3.515	3.605		3.2368	.3353
	N.A.		2.808	2.955	3.061	3.151	3.237	3.322	3.413	3.518	3.666			
Specific Items	R.S.		2.595	2.725	2.805	2.875	2.935	3.005	3.095	3.175	3.275		2.9503	.2569
	N.A.		2.621	2.735	2.815	2.885	2.950	3.016	3.085	3.166	3.279			
Total	R.S.	1.000	2.505	2.705	2.835	2.985	3.065	3.145	3.225	3.305	3.405	4.000	3.0161	.3398
	N.A.		2.581	2.731	2.838	2.929	3.016	3.103	3.194	3.302	3.451			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 17

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Courses

Based on Data From 109 Graduate Courses Taught at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.945	3.145	3.225	3.265	3.315	3.375	3.485	3.585	3.695	4.000	3.3372	.3047
	N.A.		2.947	3.081	3.177	3.260	3.337	3.415	3.497	3.593	3.727			
Method of Instruction	R.S.		2.405	2.655	2.745	2.865	2.935	3.035	3.135	3.295	3.395		2.9292	.3978
	N.A.		2.420	2.595	2.720	2.828	2.929	3.031	3.138	3.263	3.438			
Course Content	R.S.		2.735	2.845	2.915	2.975	3.035	3.075	3.155	3.235	3.375		3.0426	.2401
	N.A.		2.735	2.841	2.917	2.981	3.043	3.104	3.169	3.244	3.350			
Interest and Attention	R.S.		2.635	2.785	2.865	2.975	3.045	3.135	3.325	3.405	3.515		3.0739	.3668
	N.A.		2.604	2.766	2.881	2.980	3.074	3.167	3.266	3.382	3.543			
Instructor	R.S.		2.905	3.065	3.155	3.215	3.255	3.315	3.415	3.475	3.595		3.2724	.2532
	N.A.		2.948	3.060	3.139	3.208	3.272	3.337	3.405	3.485	3.596			
Specific Items	R.S.		2.745	2.825	2.905	2.955	3.015	3.055	3.145	3.225	3.365		3.0284	.2266
	N.A.		2.738	2.838	2.909	2.971	3.028	3.086	3.147	3.219	3.318			
Total	R.S.	1.000	2.755	2.895	2.965	3.025	3.095	3.165	3.255	3.355	3.445	4.000	3.1109	.2731
	N.A.		2.761	2.881	2.968	3.041	3.111	3.181	3.254	3.340	3.460			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 18

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Freshmen Courses

Based on Data From 2036 Freshman Courses Taught Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.555	2.725	2.865	2.965	3.045	3.125	3.215	3.305	3.445	4.000	3.0317	.3489
	N.A.		2.585	2.739	2.849	2.943	3.032	3.121	3.215	3.325	3.478			
Method of Instruction	R.S.		2.225	2.415	2.565	2.685	2.785	2.885	2.975	3.105	3.255		2.7708	.3940
	N.A.		2.266	2.440	2.564	2.670	2.771	2.871	2.978	3.102	3.275			
Course Content	R.S.		2.475	2.595	2.675	2.735	2.805	2.885	2.945	3.045	3.165		2.8233	.2657
	N.A.		2.483	2.600	2.684	2.756	2.823	2.891	2.963	3.046	3.163			
Interest and Attention	R.S.		2.155	2.355	2.485	2.615	2.725	2.835	2.935	3.075	3.255		2.7262	.4153
	N.A.		2.195	2.377	2.508	2.620	2.726	2.832	2.944	3.075	3.258			
Instructor	R.S.		2.685	2.875	2.975	3.055	3.125	3.205	3.275	3.355	3.455		3.1122	.2946
	N.A.		2.735	2.865	2.958	3.037	3.112	3.187	3.267	3.360	3.489			
Specific Items	R.S.		2.535	2.655	2.735	2.795	2.855	2.905	2.965	3.035	3.125		2.8522	.2312
	N.A.		2.556	2.658	2.731	2.793	2.852	2.911	2.974	3.046	3.148			
Total	R.S.	1.000	2.465	2.625	2.725	2.805	2.885	2.965	3.035	3.125	3.265	4.000	2.8846	.2952
	N.A.		2.507	2.637	2.730	2.809	2.885	2.960	3.040	3.133	3.262			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 19

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Sophomore Courses

Based on Data From 860 Sophomore Courses Taught Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.645	2.805	2.935	3.045	3.125	3.225	3.315	3.415	3.555	4.000	3.1252	.3523
	N.A.		2.674	2.829	2.940	3.035	3.125	3.215	3.310	3.421	3.576			
Method of Instruction	R.S.		2.315	2.495	2.635	2.745	2.845	2.955	3.055	3.165	3.305		2.8358	.3896
	N.A.		2.337	2.509	2.631	2.736	2.836	2.935	3.040	3.163	3.334			
Course Content	R.S.		2.605	2.685	2.775	2.835	2.905	2.985	3.045	3.115	3.245		2.9229	.2544
	N.A.		2.597	2.709	2.789	2.858	2.923	2.988	3.056	3.137	3.249			
Interest and Attention	R.S.		2.285	2.475	2.625	2.735	2.835	2.935	3.045	3.155	3.315		2.8310	.3942
	N.A.		2.326	2.500	2.624	2.730	2.831	2.932	3.038	3.162	3.336			
Instructor	R.S.		2.835	2.965	3.055	3.125	3.195	3.275	3.335	3.415	3.535		3.1950	.2799
	N.A.		2.837	2.960	3.048	3.124	3.195	3.266	3.342	3.430	3.553			
Specific Items	R.S.		2.645	2.735	2.805	2.875	2.935	2.985	3.035	3.105	3.195		2.9349	.2196
	N.A.		2.654	2.750	2.820	2.879	2.935	2.991	3.050	3.119	3.216			
Total	R.S.	1.000	2.595	2.715	2.815	2.895	2.965	3.055	3.125	3.205	3.315	4.000	2.9728	.2867
	N.A.		2.606	2.732	2.822	2.900	2.973	3.046	3.123	3.214	3.340			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 20

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Junior and Senior Courses

Based on Data From 452 Junior and Senior Courses Taught Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.595	2.855	3.005	3.145	3.255	3.335	3.425	3.505	3.635	4.000	3.1933	.3826
	N.A.		2.704	2.872	2.992	3.096	3.193	3.291	3.394	3.515	3.683			
Method of Instruction	R.S.		2.135	2.375	2.565	2.715	2.875	2.955	3.125	3.225	3.345		2.8118	.4751
	N.A.		2.204	2.413	2.562	2.691	2.812	2.933	3.061	3.211	3.420			
Course Content	R.S.		2.515	2.685	2.805	2.885	2.945	3.015	3.095	3.175	3.255		2.9416	.2842
	N.A.		2.578	2.703	2.792	2.869	2.942	3.014	3.091	3.180	3.305			
Interest and Attention	R.S.		2.215	2.465	2.665	2.795	2.915	3.045	3.165	3.285	3.415		2.8864	.4484
	N.A.		2.312	2.510	2.651	2.772	2.886	3.001	3.122	3.263	3.460			
Instructor	R.S.		2.715	2.905	3.025	3.115	3.225	3.305	3.385	3.465	3.585		3.1919	.3296
	N.A.		2.770	2.915	3.019	3.108	3.192	3.276	3.365	3.469	3.614			
Specific Items	R.S.		2.625	2.735	2.825	2.895	2.945	3.015	3.085	3.165	3.255		2.9573	.2441
	N.A.		2.645	2.752	2.829	2.895	2.957	3.020	3.085	3.162	3.270			
Total	R.S.	1.000	2.515	2.695	2.815	2.915	3.025	3.095	3.185	3.285	3.385	4.000	2.9955	.3322
	N.A.		2.570	2.716	2.821	2.911	2.995	3.080	3.170	3.275	3.421			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

Table 21

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for Graduate Courses

Based on Data From 220 Graduate Courses Taught Throughout the United States[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.825	3.065	3.155	3.255	3.305	3.405	3.485	3.575	3.665	4.000	3.2991	.3274
	N.A.		2.880	3.024	3.127	3.216	3.299	3.383	3.471	3.574	3.718			
Method of Instruction	R.S.		2.335	2.565	2.725	2.875	2.945	3.055	3.165	3.275	3.385		2.9272	.4035
	N.A.		2.411	2.588	2.715	2.824	2.927	3.030	3.139	3.266	3.444			
Course Content	R.S.		2.725	2.835	2.905	2.965	3.025	3.075	3.145	3.215	3.355		3.0300	.2433
	N.A.		2.719	2.826	2.902	2.968	3.030	3.092	3.158	3.234	3.341			
Interest and Attention	R.S.		2.485	2.695	2.835	2.925	3.045	3.145	3.285	3.375	3.495		3.0295	.4054
	N.A.		2.511	2.689	2.817	2.926	3.029	3.133	3.242	3.370	3.548			
Instructor	R.S.		2.855	3.015	3.135	3.205	3.285	3.335	3.405	3.465	3.575		3.2586	.2642
	N.A.		2.920	3.037	3.120	3.191	3.259	3.326	3.397	3.481	3.597			
Specific Items	R.S.		2.685	2.815	2.875	2.945	3.015	3.055	3.115	3.205	3.305		3.0124	.2237
	N.A.		2.726	2.824	2.895	2.955	3.012	3.069	3.130	3.200	3.299			
Total	R.S.	1.000	2.685	2.865	2.945	3.025	3.095	3.165	3.255	3.345	3.445	4.000	3.0905	.2854
	N.A.		2.725	2.851	2.941	3.018	3.090	3.163	3.240	3.330	3.456			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

APPENDIX F

Decile Norm Cut-off Scores for
CEQ Subscales at the University of Illinois

Table 22

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for CEQ Subscales on 2784 Sections Taught at the University of Illinois[1]

Subscore	Type of Mean	Decile										Mean	S. D.
		0	1	2	3	4	5	6	7	8	9		
General Course Attitude	R.S.	1.000	2.555	2.735	2.875	2.975	3.075	3.155	3.255	3.375	3.515	4.000	3.0617	.3682
	N.A.		2.590	2.752	2.868	2.968	3.062	3.156	3.255	3.371	3.533			
Method of Instruction	R.S.		2.215	2.415	2.555	2.675	2.775	2.895	3.005	3.135	3.295		2.7771	.4121
	N.A.		2.250	2.431	2.561	2.672	2.777	2.882	2.993	3.123	3.305			
Course Content	R.S.		2.495	2.615	2.685	2.745	2.825	2.895	2.985	3.075	3.205		2.8487	.2777
	N.A.		2.493	2.615	2.703	2.778	2.849	2.920	2.994	3.082	3.204			
Interest and Attention	R.S.		2.195	2.385	2.535	2.655	2.765	2.875	2.995	3.135	3.315		2.7709	.4270
	N.A.		2.224	2.412	2.547	2.662	2.771	2.880	2.995	3.130	3.317			
Instructor	R.S.		2.735	2.895	2.995	3.075	3.155	3.225	3.305	3.395	3.515		3.1445	.3065
	N.A.		2.752	2.887	2.984	3.066	3.144	3.223	3.305	3.402	3.537			
Specific Items	R.S.		2.545	2.655	2.725	2.785	2.855	2.905	2.975	3.045	3.165		2.8618	.2423
	N.A.		2.552	2.658	2.735	2.800	2.862	2.924	2.989	3.065	3.172			
Total	R.S.	1.000	2.485	2.635	2.735	2.815	2.895	2.985	3.075	3.165	3.315	4.000	2.9089	.3098
	N.A.		2.512	2.649	2.746	2.830	2.909	2.988	3.072	3.169	3.305			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.

APPENDIX G

Decile Norm Cut-off Scores for CEQ Subscales Throughout the United States

Table 23

Raw Score (R.S.) and Normal Approximation (N.A.) Mean Intervals for CEQ

Subscales on 5346 Sections Taught Throughout the United States[1]

Subscore	Type of Mean	Decile											Mean	S. D.
		0	1	2	3	4	5	6	7	8	9			
General Course Attitude	R.S.	1.000	2.615	2.795	2.915	3.015	3.105	3.195	3.285	3.385	3.525	4.000	3.0948	.3419
	N.A.		2.657	2.808	2.915	3.008	3.095	3.182	3.274	3.382	3.532			
Method of Instruction	R.S.		2.255	2.445	2.585	2.715	2.815	2.925	3.035	3.145	3.285		2.8035	.3973
	N.A.		2.295	2.470	2.595	2.702	2.803	2.905	3.012	3.137	3.312			
Course Content	R.S.		2.535	2.645	2.715	2.795	2.855	2.925	3.005	3.085	3.205		2.8740	.2547
	N.A.		2.548	2.660	2.740	2.809	2.874	2.939	3.008	3.088	3.200			
Interest and Attention	R.S.		2.245	2.435	2.575	2.695	2.805	2.905	3.025	3.155	3.315		2.8025	.4038
	N.A.		2.286	2.463	2.591	2.700	2.802	2.905	3.014	3.142	3.319			
Instructor	R.S.		2.755	2.915	3.015	3.095	3.165	3.235	3.315	3.395	3.495		3.1561	.2811
	N.A.		2.796	2.920	3.009	3.084	3.156	3.228	3.304	3.392	3.516			
Specific Items	R.S.		2.585	2.685	2.765	2.825	2.885	2.945	3.005	3.075	3.175		2.8915	.2228
	N.A.		2.606	2.704	2.775	2.835	2.891	2.948	3.008	3.079	3.177			
Total	R.S.	1.000	2.535	2.675	2.765	2.855	2.935	3.005	3.095	3.175	3.305	4.000	2.9354	.2879
	N.A.		2.567	2.694	2.784	2.862	2.935	3.009	3.087	3.177	3.304			

[1]The normal approximation (N.A.) means were obtained by using the raw score mean and standard deviation (S.D.) in the normal curve equation.